SHARP

MODEL

LC-60LE830X
LC-52LE830X
LC-46LE830X
LC-40LE830X

LCD COLOUR TELEVISION

OPERATION MANUAL

AQUOS



FULL HD 1080P

srs TruSurround HD

HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE

DOLBY DIGITAL

DIVX+ HD

DVB Digital Video Broadcasting

LED

ENERGY STAR

dlna CERTIFIED

AudioEngine LSI by YAMAHA

OPERATION MANUAL

ENGLISH

Dear SHARP customer

Thank you for your purchase of the SHARP LCD colour TV product. To ensure safety and many years of trouble-free operation of your product, please read **Important safety precautions** carefully before using this product.

Contents

Introduction 3
- Precautions For Daily Use 3
- Important safety precautions 3
- Supplied accessories 5
- Optional accessories 5

Preparation 6
- Protection against overturning 6
- Attaching the stand unit – 52/46/40LE830X 7
- Attaching the stand unit – 60LE830X 8
- Connecting the TV 9
  - Angle adjustment 9
- Using the remote control unit 10
  - Inserting the batteries 10
  - Angle of the remote control unit 10
  - Cautions regarding the remote control unit 10

Part names and functions 11
- TV (front view) 11
- TV (rear view) 11
- Remote control unit 12

Quick guide 13
- What is the Menu? 13
  - Basic operation 13
- Initial auto installation 15
- Checking signal strength and channel strength 15

Watching TV 16
- Daily operation 16
  - Turning on/off the power – using the TV front panel 16
  - Turning on/off the power – using the remote control unit 16
  - Switching between digital and analogue broadcasts 17
  - Programme guide 17
  - Programme information (DTV) 17
  - Selecting an external video source 17
  - Switching the digital audio format 18
  - Switching the analogue audio format 18
- Teletext 19
- EPG 21
  - Useful settings for using EPG 21
  - Selecting a programme using EPG 22
  - Timer setup using EPG 24
  - Cancelling the timer setup 24

Connecting external devices 25
- Video connections 26
  - HDMI connection 26
  - Component connection 27
  - VIDEO connection 27
- Audio connections 27
  - Speaker/amplifier connection 27

AQUOS LINK 28
- Controlling HDMI devices using AQUOS LINK 28
- AQUOS LINK connection 29
- Operating an AQUOS LINK device 29

Basic adjustment 31
- Picture settings 31
- Audio settings 33
- Power save settings 34
- Channel settings 35
  - Digital setting 35
  - Analogue setting 36
  - Sort 36
  - Erase programme 36

Useful viewing functions 37
- TV Start-up time setting 37
- Individual setting – Password 37
- Individual setting – Time 38
- Individual setting – Language 38
- Optional features settings 39
  - Selecting the picture size manually 39
  - Selecting the WSS picture size automatically 39
  - Setting audio input 40
  - Skipping specified inputs 40
  - Selecting the HDMI picture size automatically 41
  - Adjusting image position 42
- Additional features 43

Other useful features 44
- Using a USB device 44
  - Connecting a USB device 44
  - Selecting USB usage 44
- Time shift 45
- USB media/Home network 48
  - Photo mode 49
  - 3D mode 49
  - Music mode 50
  - Video mode 51
- USB device compatibility 52
- Home network server compatibility 52

Network setup 53
- Connecting to the network 53
- Specifications (Wireless LAN USB adapter) 55
- Optional accessories (Wireless LAN USB adapter) 55

Connecting a PC 56
- Connecting a PC 56
- Displaying a PC image on the screen 56
  - Selecting the picture size 56
  - Adjusting the PC image automatically 57
  - Adjusting the PC image manually 57
- PC control of the TV 58
  - Command list 59

Enjoying 3D image viewing.....60
Display format for 3D and 2D images 60
Viewing 3D images 61
Receiving a 3D image signal that can be detected automatically 61
Switching 3D to 2D mode 61
Receiving a 3D image signal that cannot be detected automatically 61
Watching 2D images in 3D 62
Switching to the previous mode 62
3D Menu 62
Configuring the TV settings to enhance 3D image viewing 62
3D picture adjustments 62
3D setup 63
Troubleshooting – 3D Images.....64
Appendix 65
Troubleshooting 65
Troubleshooting – Digital broadcasing.....65
Reset.....66
Updating your TV via DVB-T 66
Getting information 67
Updating your TV via USB 67
Information on the software licence for this product 68
Software licence.....68
Specifications 69
Removing the stand.....70
Mounting the TV on a wall.....71
Dimensional drawings.....72

NOTE

- The illustrations used throughout this operation manual are based on LC-46LE830X.

This product qualifies for ENERGY STAR when “Home” is selected for “TV Location”.
Setting “TV Location” to “Home” allows the TV to achieve an energy-saving status for household use.

Introduction

Precautions For Daily Use

Observe the following items

Maintenance of the cabinet

- When cleaning the cabinet, use a soft cloth (made of cotton, floss, etc.) to clean gently.
- Do not use a dry or damp rag mixed with chemicals, as this could cause the ingredients of the cabinet body to deteriorate or crack.
- Be careful not to use an abrasive cloth for cleaning or clean with excessive force, as this could scratch the surface of the cabinet.
- If the cabinet is greatly soiled, clean with a soft cloth (made of cotton, floss, etc.) soaked with a small amount of diluted neutral detergent and wrung out, and then clean with a soft dry cloth.
- Solvents such as benzene or thinner could cause the cabinet to deteriorate, or make its coating come off. Therefore do not use such solvents to clean the cabinet.
- Because plasticizer is included in the plastics, deterioration or the coating peeling off could occur when the cabinet comes into contact with some substances. Therefore keep it away from volatile substances such as insecticide. In addition, do not let it come into contact with objects made of rubber, resin, etc. for a long time.

Maintenance of the LCD panel

- Before cleaning the LCD panel, be sure to turn off the TV set and unplug the power cord from the outlet.
- When cleaning the LCD panel, use a dry and soft cloth (made of cotton, floss, etc.) to clean the surface of the LCD panel gently. For protecting the LCD panel, do not clean with a dirty cloth, detergent, or a dry or damp rag mixed with chemicals, as this could cause peeling of the panel surface.
- Be careful not to clean with an abrasive cloth or with excessive force, as this could cause the panel surface to be scratched.
- If the LCD panel is greatly soiled, clean it gently with a soft cloth (made of cotton, floss, etc.) soaked with a small amount of water (Do not clean with excessive force, so as to avoid the scratch of the panel surface).
- If dust sticks on the surface of the LCD panel, clean the panel with a commercially available cleaning brush (anti-static brush).

Important safety precautions

Caring for the cabinet

- Use a soft cloth (cotton, flannel, etc.) and gently wipe the surface of the cabinet.
- Using a chemical cloth (wet/dry sheet type cloth, etc.) may deform the components of the main unit cabinet or cause cracking.
- Wiping with a hard cloth or using strong force may scratch the surface of the cabinet.
- If the cabinet is very dirty, wipe with a soft cloth (cotton, flannel, etc.) soaked in neutral detergent diluted with water and thoroughly wrung out, and then wipe with a soft dry cloth.
- The cabinet is primarily made of plastic. Avoid using benzene, thinner, and other solvents, as these may deform the cabinet and cause the paint to peel off.
- Do not apply insecticides or other volatile liquids.
- Also, do not allow the cabinet to remain in contact with rubber or vinyl products for a long period of time. Plasticizers inside the plastic may cause the cabinet to deform and cause the paint to peel off.

- When relocating the product placed on a cart, it must be moved with utmost care. Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.



Caring for the front panel

- Turn off the main power and unplug the AC cord from the wall outlet before handling.
- Gently wipe the surface of the front panel with a soft cloth (cotton, flannel, etc.).
- To protect the front panel, do not use a dirty cloth, liquid cleaners, or a chemical cloth (wet/dry sheet type cloth, etc.). This may damage the surface of the front panel.
- Wiping with a hard cloth or using strong force may scratch the surface of the front panel.
- Use a soft damp cloth to gently wipe the front panel when it is really dirty (It may scratch the surface of the front panel when wiped strongly).
- If the front panel is dusty, use an anti-static brush, which is commercially available, to clean it.



- Water and moisture — Do not use the product near water, such as bathtub, washbasin, kitchen sink, laundry tub, swimming pool and in a wet basement.



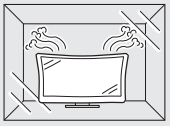
- Do not place vases or any other water-filled containers on this product.
  The water may spill onto the product causing fire or electric shock.



- Stand — Do not place the product on an unstable cart, stand, tripod or table. Doing so can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.



- Ventilation — The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.



- In case the product is dropped and the cabinet is damaged, be sure to turn off the power of the product, and unplug the power cord. If you continue to use the product, it may cause fire or electric shock. Contact your dealer.



- Do not open the rear cover of the cabinet to reconstruct the circuits. There exists high voltage within the cabinet and it may cause electric shock and injury. If maintenance is required, contact your dealer.



- The LCD panel used in this product is made of glass. Therefore, it can break when the product is struck forcefully or with a sharp object. If the LCD panel is broken, be careful not to be injured by broken glass.



- Heat sources — Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers).



- To prevent fire, never place any type of candle or naked flames on the top or near the TV set.



- To prevent fire or shock hazard, do not place the AC power cord under the TV set or other heavy items.



- Do not place heavy objects on this product or stand on it. Doing so could cause injury if the product overturns. Take special care near children and pets.



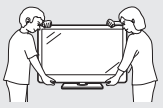
- Unplug the power cord before you move the TV set. If not unplugged beforehand, the power cord may become damaged and cause electric shock.



The LCD panel is a very high technology product with 2,073,600 pixels, giving you fine picture details.
Due to the very large number of pixels, occasionally a few non-active pixels may appear on the screen as a fixed point of blue, green, red or yellow.
This is within product specifications and does not constitute a fault.

Precautions when transporting the TV

- When transporting the TV, never carry it by holding or otherwise putting pressure onto the display. Be sure to always carry the TV by two people holding it with two hands — one hand on each side of the TV.



If a television is not positioned in a sufficiently stable location, it can be potentially hazardous due to falling.
Many injuries, particularly to children, can be avoided by taking simple precautions such as:

- Using cabinets or stands recommended by the manufacturer of the television.
- Only using furniture that can safely support the television.
- Ensuring the television is not overhanging the edge of the supporting furniture.
- Not placing the television on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the television to a suitable support.
- Not standing the televisions on cloth or other materials placed between the television and supporting furniture.
- Educating children about the dangers of climbing on furniture to reach the television or its controls.

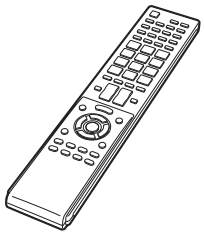
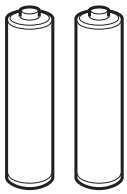
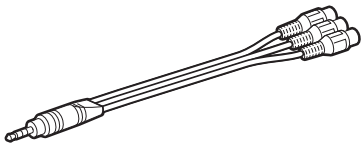
- Do not display a still picture for a long time, as this could cause an afterimage to remain.

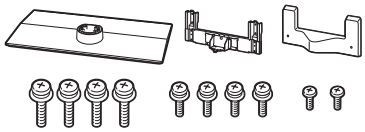
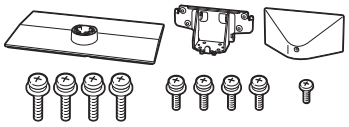
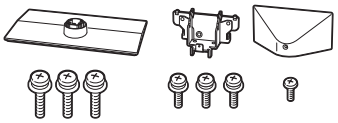
- Install the product on the place where the AC cord can be unplugged easily from the AC outlet, or from the AC INPUT terminal on the rear of the product.

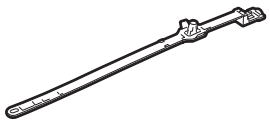
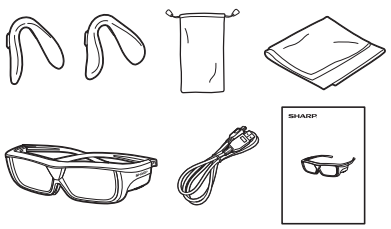
NOTE

- The above are pictures for reference only; the actual item might be different.

Supplied accessories

Remote control unit (x 1)	“AAA” size battery (x 2)	AV cable (x 1)
		
Pages 10 and 12	Page 10	Page 27

Stand unit		
		
LC-60LE830X Page 8	**LC-52/46LE830X** Page 7	**LC-40LE830X** Page 7

Cable tie (x 1)	3D glasses accessories	Operation manual
		
Page 9		

Optional accessories

The listed optional accessories are available for this LCD colour TV. Please purchase them at your nearest shop.

- Additional optional accessories may be available in the near future. When purchasing, please read the newest catalogue for compatibility and check the availability.

No.	Part name	Part number
1	Wall mount bracket (60 inch models)	AN-52AG4
	Wall mount bracket (52/46 inch models)	
2	Wall mount bracket (40 inch models)	AN-37AG2
	Attachment (40 inch models)	AN-37P30
3	3D glasses	AN-3DG10-S
		AN-3DG20-B

No.	Part name	Part number
4	Wireless LAN USB adapter	KI-OUA004WJN1*1
		KI-OUA004WJN2*1
		KI-OUA004WJN3*1
		KI-OUA004WJN4*1

*1 Refer to page 55 for details on sales areas.

Preparation

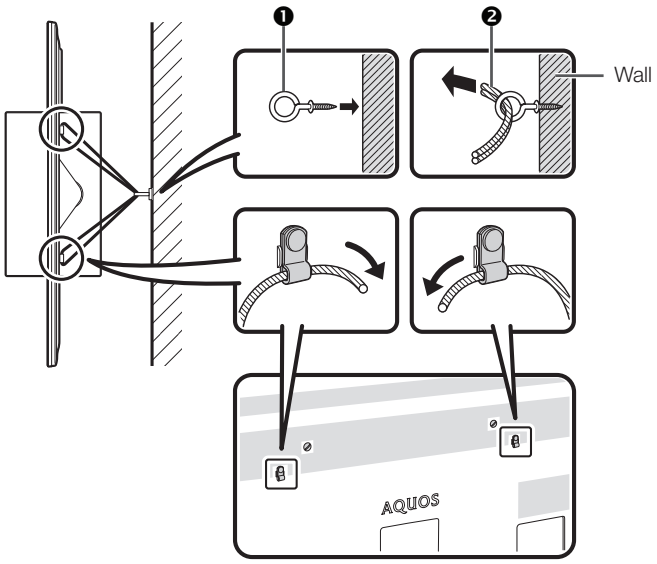
Protection against overturning

There is a danger of the product overturning in the case of a disaster or sudden collision. Carry out the following tip-resistant measurement for your safety.

Anchoring the TV to the wall or a pillar

1 Affix the TV to the wall or a pillar using extra strong ties and cup hooks.

View from the top



❶ Cup hook (commercially available)
❷ Tie (commercially available)

Fixing the TV to the table

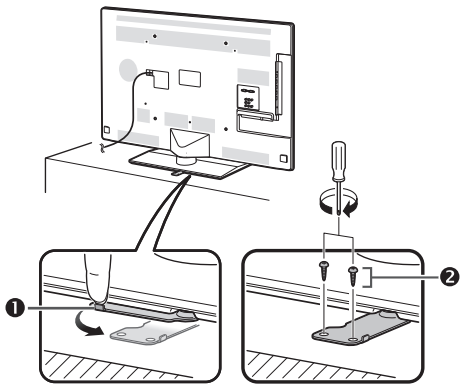
1 Place the TV on the table.

2 Pull the attached restraining bracket out so that it is at a 90 degrees angle.

3 Insert commercially available screws in the holes of the restraining bracket and tighten the screws to secure the TV to the table.
- Use commercially available screws to firmly secure the TV.

CAUTION

- **As this product is heavy, use a table that is wide enough to support the product and capable of withstanding the product's weight. The table should be set where it will not be overturned.**
- Be sure to use at least two people when moving the TV.



❶ Restraining bracket (attached)
❷ Screws (commercially available)

Attaching the stand unit – 52/46/40LE830X

- Before performing work, spread cushioning over the surface on which you will be laying the TV. This will prevent it from being damaged.

CAUTION

- **Attach the stand in the correct direction.**
- **Be sure to follow the instructions. Incorrect installation of the stand may result in the TV falling over.**

1 Confirm that there are screws with the stand unit.

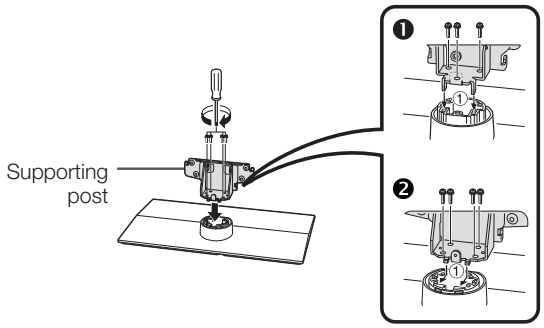
For 52/46 inch models
(four long screws, four middle screws and one short screw)



For 40 inch models
(three long screws, three middle screws and one short screw)

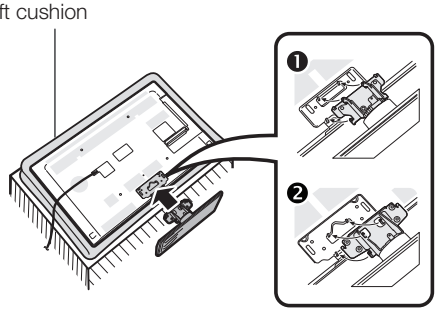


2 Attach the supporting post for the stand unit onto the base using the long screws with a screwdriver as shown.



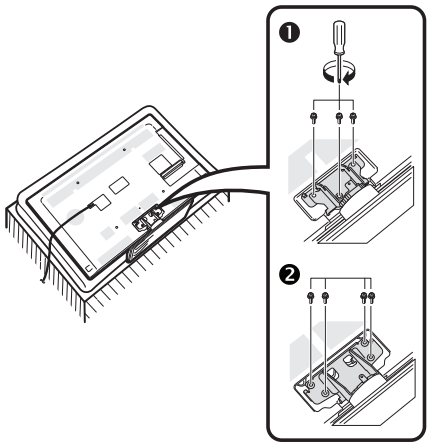
❶ 40 inch models ❷ 52/46 inch models

3 Insert the stand into the openings on the bottom of the TV (hold the stand so it will not drop from the edge of the base area).



❶ 40 inch models ❷ 52/46 inch models

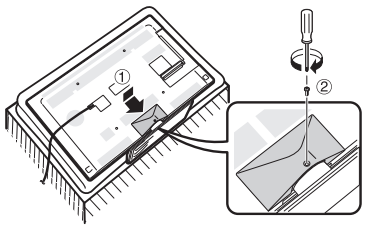
4 Insert and tighten middle screws into the holes on the rear of the TV.



❶ 40 inch models ❷ 52/46 inch models

5 Attaching the stand cover.

① Insert the stand cover.
② Insert and tighten a short screw into the hole of the stand cover.



NOTE

- To detach the stand unit, perform the steps in reverse order.
- A screwdriver is not supplied with this product.

Attaching the stand unit – 60LE830X

- Before performing work, spread cushioning over the surface on which you will be laying the TV. This will prevent it from being damaged.

CAUTION

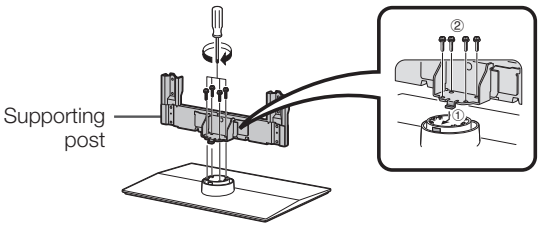
- **Attach the stand in the correct direction.**
- **Be sure to follow the instructions. Incorrect installation of the stand may result in the TV falling over.**

1 Confirm that there are screws with the stand unit.

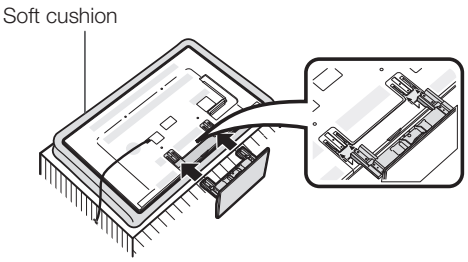
For 60 inch models
(four long screws, four middle screws and two short screws)



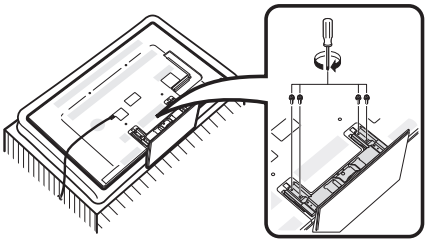
2 Attach the supporting post for the stand unit onto the base using the long screws with a screwdriver as shown.



3 Insert the stand into the openings on the bottom of the TV (hold the stand so it will not drop from the edge of the base area).

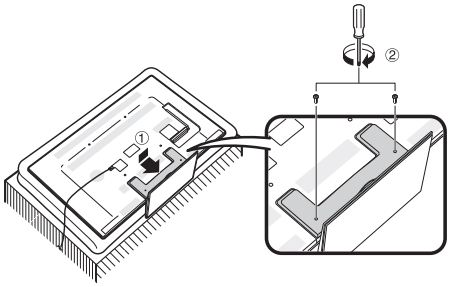


4 Insert and tighten middle screws into the holes on the rear of the TV.



5 Attaching the stand cover.

① Insert the stand cover.
② Insert and tighten two short screws into the holes of the stand cover.



NOTE

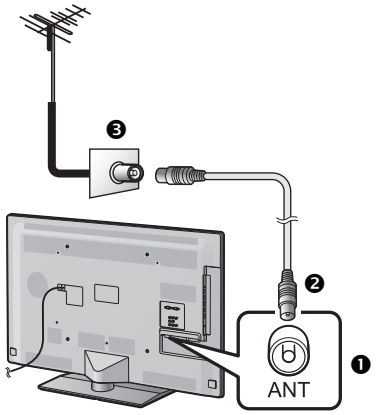
- To detach the stand unit, perform the steps in reverse order.
- A screwdriver is not supplied with this product.

Connecting the TV

Notes on installing the TV

- Avoid direct sunlight and place the TV in a well-ventilated location.
- Place the TV in a level location.
- Do not turn on the power of the TV before connecting the AC cord.

1 Connect the antenna cable.



❶ Standard DIN45325 plug (IEC169-2) 75-ohm coaxial cable (round cable)

❷ Antenna cable (commercially available)

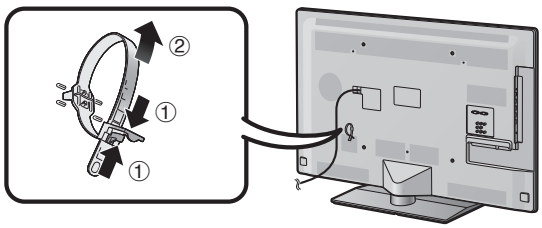
❸ Room antenna terminal (75-ohm type)

2 Connect external devices.

See pages 25 to 27 for connecting external equipment, such as a VCR and DVD player.

3 Plug the AC cord in to the AC outlet (product shape varies in some countries).

TV (rear view)

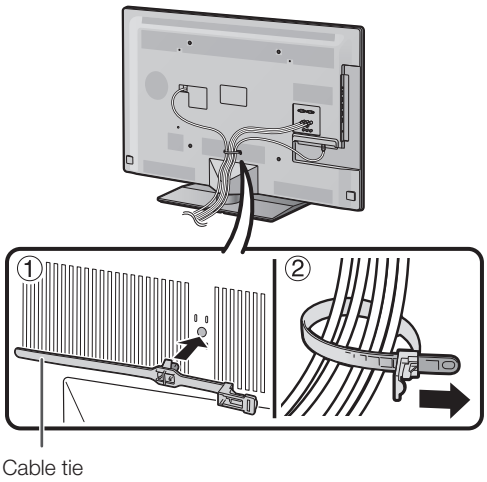


- Place the TV close to the AC outlet, and keep the power plug within reach.
- Disconnect the AC cord from the AC outlet if the TV will not be used for a long period of time.

4 Bundle the cables.

① Insert the clip into the hole on the TV.

② Bundle the cables.

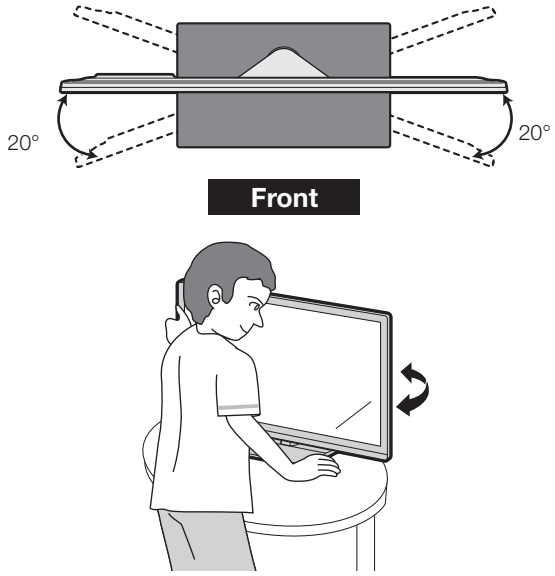


CAUTION

TO PREVENT RISK OF ELECTRIC SHOCK, DO NOT TOUCH UN-INSULATED PARTS OF ANY CABLES WITH THE AC CORD CONNECTED.

Angle adjustment

The TV can be rotated up to 20 degrees to the right or left.



CAUTION

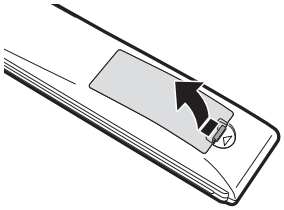
- Adjust the screen with both hands. Place one hand on the TV and rotate the screen while holding the bottom of the stand (the black part in the above illustration) with your other hand.

Using the remote control unit

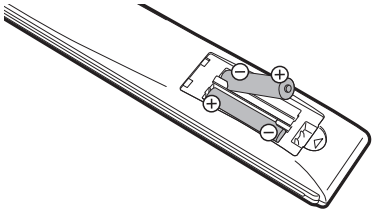
Inserting the batteries

Before using the TV for the first time, insert two supplied “AAA” size batteries. When the batteries become depleted and the remote control unit fails to operate, replace the batteries with new “AAA” size batteries.

1 Open the battery cover.

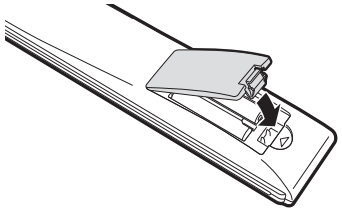


2 Insert the two supplied “AAA” size batteries.



- Place batteries with their terminals corresponding to the (+) and (−) indications in the battery compartment.

3 Close the battery cover.



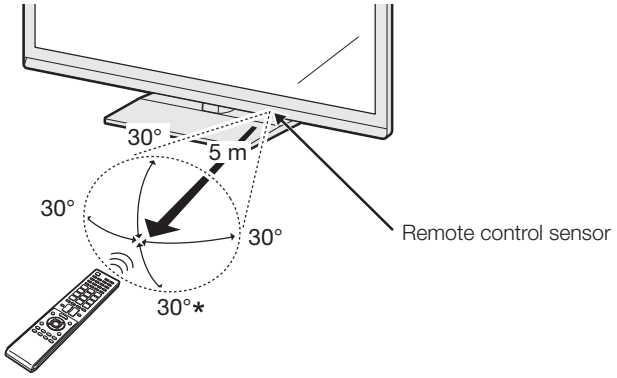
CAUTION

Improper use of batteries can result in chemical leakage or explosion. Be sure to follow the instructions below.

- Do not mix batteries of different types. Different types of batteries have different characteristics.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries or cause chemical leakage in old batteries.
- Remove batteries as soon as they have worn out. Chemicals that leak from batteries can cause a rash. If you find any chemical leakage, wipe thoroughly with a cloth.
- The batteries supplied with this product may have a shorter life expectancy due to storage conditions.
- If you will not be using the remote control unit for an extended period of time, remove the batteries from it.
- Batteries shall not be exposed to excessive heat such as sunshine, fire or the like.

Angle of the remote control unit

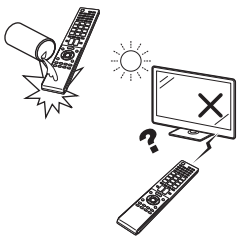
Use the remote control unit by pointing it towards the remote control sensor. Objects between the remote control unit and sensor may prevent proper operation.



* When mounting the TV on the wall

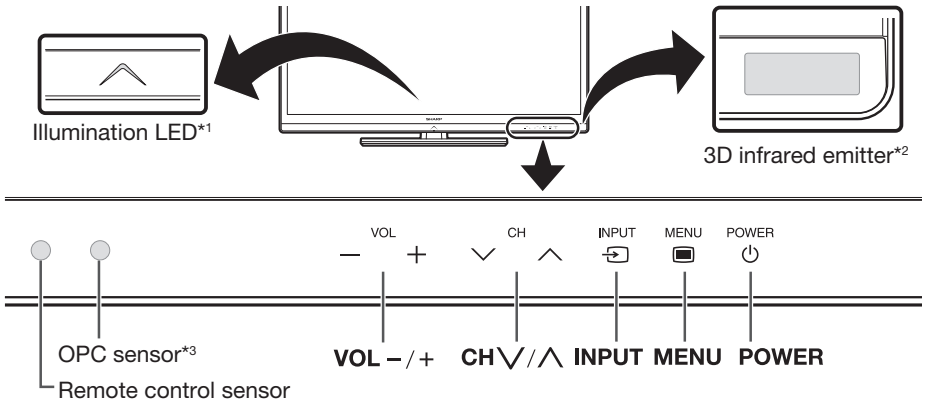
Cautions regarding the remote control unit

- Do not expose the remote control unit to shock. In addition, do not soak the remote control unit to liquids, and do not place in an area with high humidity.
- Do not install or place the remote control unit under direct sunlight. The heat may cause deformation of the unit.
- The remote control unit may not work properly if the remote control sensor of the TV is under direct sunlight or strong lighting. In such cases, change the angle of the lighting or the TV, or operate the remote control unit closer to the remote control sensor.



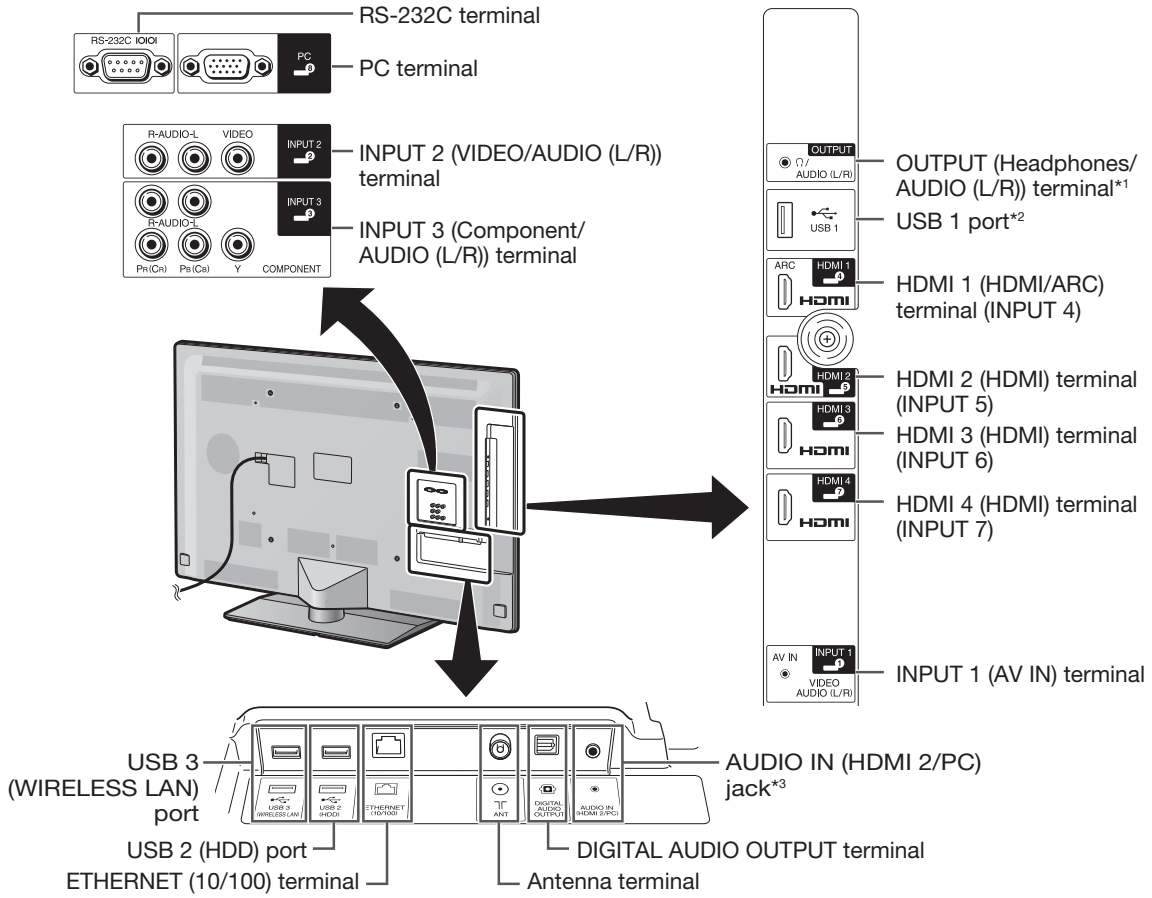
Part names and functions

TV (front view)



*1 3D mode: Blue illumination
2D mode: White illumination
*2 This panel emits infrared signal towards the 3D glasses you wear when viewing 3D images. Do not place anything between the 3D infrared emitter on the TV and the infrared receiver on the 3D glasses. Refer to page 64 for details.
*3 OPC: Optional Picture Control (Page 31)

TV (rear view)

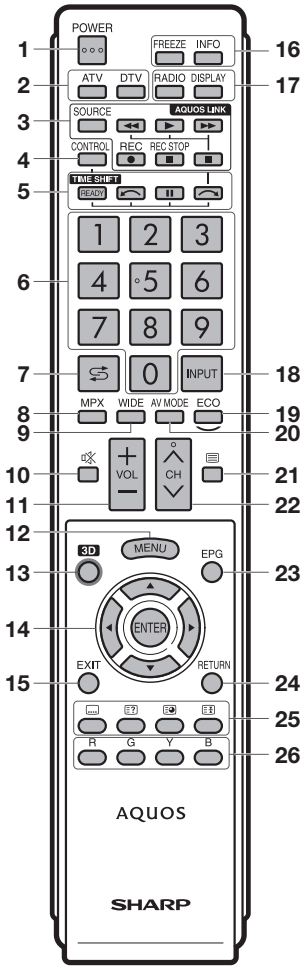


*1 Refer to page 41 for details.
*2 Skype will be available only for the USB1 terminal. Visit the following website for details:
Skype: http://www.skype.com or Sharp: http://www.aquos-world.com
*3 The HDMI 2 and PC terminals can both use the same audio input terminal (AUDIO IN (HDMI 2/PC)). However, the proper item must be selected in the "Audio select" menu (refer to page 40 for details).

WARNING

- Excessive sound pressure from earphones and headphones can cause hearing loss.
- Do not set the volume at a high level. Hearing experts advise against extended listening at high volume levels.

Remote control unit



1 POWER (Standby/On)
To switch the power on and off (Page 16).

2 ATV (Analogue TV)
Press to access analogue TV mode (Page 17).

DTV (Digital TV)
Press to access digital TV mode (Page 17).

3 AQUOS LINK buttons
If external equipment such as a AQUOS BD player is connected via HDMI cables and is AQUOS LINK compatible, you can use these AQUOS LINK buttons. See pages 28 and 30 for details.

4 CONTROL
Press to display the panel to operate some functions on the screen.

5 TIME SHIFT (READY/⏪/⏸/⏩)
Press to temporarily record a programme you are watching if you want to interrupt a programme to answer a phone call, for example (Pages 45 to 47).

6 0–9
Set the channel (Page 16).

7 (Flashback)
Press to return to the previously selected channel or external input.

8 MPX
Select a sound multiplex mode (Page 18).

9 WIDE
Change a wide image mode (Pages 39, 52 and 56).

10 (Mute)
Mute the sound.

11 VOL+/–
Set the volume.

12 MENU
Displays the menu screen (Page 13).

13 3D
Select between 3D and 2D image viewing (Pages 60–64).

14 ▲/▼/◀/▶ (Cursor)
Select a desired item on the setting screen.

ENTER
Execute a command.

15 EXIT
Turn off the On-Screen Display (Page 13).

16 FREEZE
Freeze a motion picture on the screen.

INFO
DTV only: Display the programme information (Page 17).

17 RADIO
DTV only: Switch between radio and data mode.
When only data broadcasting (no radio broadcasting) is transmitted by DVB, the radio broadcasting will be skipped.

DISPLAY
Display the channel or input information.
Reveal/hide the guide display for USB media mode (Pages 49–51).

18 INPUT (INPUT SOURCE)
Select an input source (ATV, DTV, INPUT1, INPUT2, INPUT3, HDMI1, HDMI2, HDMI3, HDMI4, PC, USB media and Home network) (Pages 17, 26, 40, 41 and 56).

19 ECO
Select “Energy save” setting (Page 34).

20 AV MODE
Select audio/video settings (Page 31).

21 (Teletext)
Select the teletext mode (All TV image, all text image and TV/text image) (Page 19).

22 CH∧/∨
TV input mode: Select the channel (Page 16).

23 EPG
DTV only: To display EPG (Electronic Programme Guide) screen (Pages 21 to 24).

24 RETURN
Menu mode: Return to the previous menu screen (Page 13).

25 Buttons for useful operations

(Subtitle)
Switch subtitle languages on/off (Page 19).

(Reveal hidden teletext)
Teletext mode: Display hidden characters (Page 19).

(Subpage)
Display the teletext subpage directly (Page 19).

(Hold)
Teletext mode: Stop updating teletext pages automatically. Press again to release the hold mode (Page 19).

26 R/G/Y/B (Colour) buttons
The coloured buttons are correspondingly used to select the coloured items on the screen (e.g., AQUOS LINK, USB media, Home network, teletext).

Quick guide

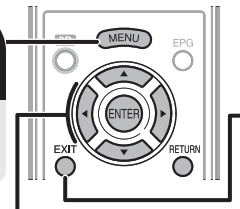
What is the Menu?

You need to call up the OSD (On-screen Display) to perform settings for the TV. The OSD (On-screen Display) for the settings is called “Menu”. The “Menu” enables various settings and adjustments.

Basic operation

1 Display the Menu screen

Press **MENU** and the “Menu” screen displays.



3 Exit the Menu screen

The operation will exit the “Menu” screen if you press **EXIT** before it is completed.

2 Select an item

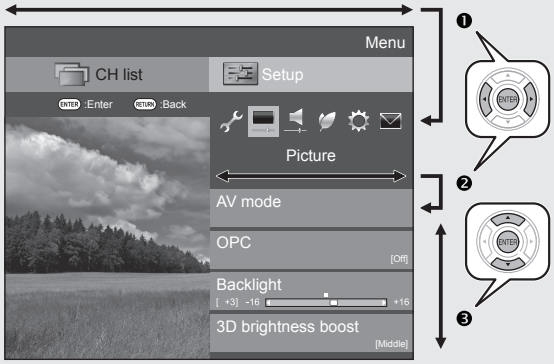
The “Menu” is classified by setting categories for improving TV viewing.

Selecting in the Menu

❶ Press ◀/▶ to select the desired menu, and then press **ENTER**. Press **RETURN** to return to the previous menu category.

❷ Press ◀/▶ to select the desired sub-menu, and then press **ENTER**.

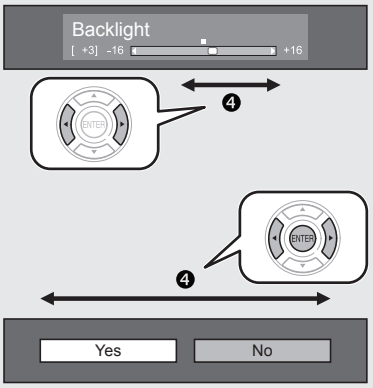
❸ Press ▲/▼ to select the item you want to select/ adjust, and then press **ENTER**.



Selecting options

❹ Press ▲/▼ or ◀/▶ to configure the control for improving TV viewing, and then press **ENTER**.

EXAMPLE



NOTE

- Refer to the guide display below the menu bar to see when to press the **ENTER** button.

Regarding the instruction on the manual

On this manual, the following expression is often used in order to simplify instructions.

- Go to “Menu“ > “Setup“ > ...

This indicates how to navigate through the menu screen using ▲/▼/◀/▶ and **ENTER** buttons.

NOTE

- “Menu” options differ in the selected input modes, but the operating procedures are the same.
- Items with ⃠ cannot be selected for various reasons.
- Some items cannot be selected depending on signal types, optional settings or connected devices.
- The screens in the operation manual are for explanation purposes (some are enlarged, others cropped) and may vary slightly from the actual screens.

About the guide display

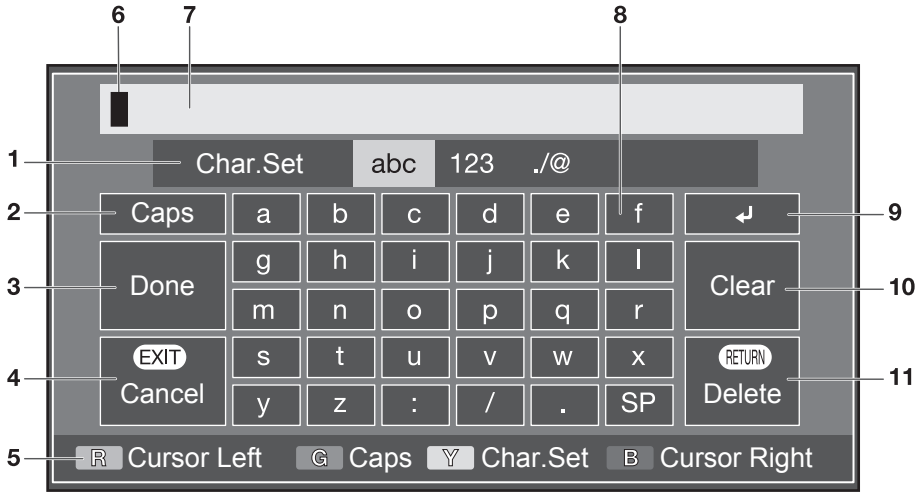
The guide display below the menu bar shows operations for the OSD.

- The bar above is an operational guide for the remote control unit. The bar will change in accordance with each menu setting screen.



Using software keyboard

Use the software keyboard when you need to input text.



1 Char. Set
Changes character set into the alphabet, numbers, symbols, etc.

2 Caps
Changes characters to capital/lower case.

3 Done
Confirm the entry.

4 Cancel
Abort input and close the software keyboard.

5 R/G/Y/B (Colour) buttons
Selects the coloured items on the screen.

6 Input cursor
Press ◀/▶ to move the cursor when highlighted.

7 Input field
The text you enter is displayed as you type it in.

8 Character
Input characters by using these buttons.

9 ↵
Put a line break.

10 Clear
Erases the character string.
- When the cursor is somewhere in a line: the character string to the right of the cursor will be erased.
- When the cursor is at the right end of a line: the entire line will be erased.

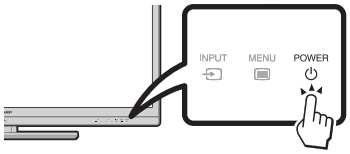
11 Delete
If the cursor is at the right end of a line, this erases text one character at a time.
- You can also delete text by pressing **RETURN** on the remote control unit.

Initial auto installation

When the TV is powered on for the first time after purchase, the initial auto installation wizard appears. Follow the menus and make the necessary settings one after another.

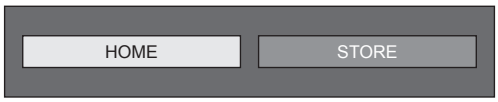
Confirm the following before turning on the power
- Is the antenna cable connected?
- Is the AC cord plugged in?

1 Press **POWER** on the TV.
- The initial auto installation wizard appears.



2 Setting the OSD language.
Press ▲/▼ to select the desired language, and then press **ENTER**.

3 Selecting the location of the TV.
Press ◀/▶ to select where you will use this TV, and then press **ENTER**.
- HOME: Settings are optimised for normal home viewing and energy efficiency.
- STORE: Settings are designed for maximum impact in retail store displays.
- This product qualifies for ENERGY STAR in "Home" mode default setting.
- ENERGY STAR qualification is based on "STANDARD" in the "AV mode" menu.



- HOME: "STANDARD" will be the default value for the "AV mode" setting.
- STORE: The confirmation screen pops up only when selecting "STORE". Press ◀/▶ to select "Yes" or "No".
- STORE: "DYNAMIC (Fixed)" will be the default value for the "AV mode" setting. If the "AV mode" is changed, the TV will automatically switch back to "DYNAMIC (Fixed)" when there is no operation using the TV or remote control unit for 30 minutes.

NOTE
- STORE: A demonstration image will be displayed after initial auto installation is completed. If you have chosen "STORE" by mistake, go to "Setup" > "View setting" > "Reset" > select "HOME" again.

4 Setting the country.
Press ▲/▼ to select your country or area, and then press **ENTER**.
- This setting screen only appears during the initial auto installation.

5 Press ◀/▶ to select "Digital search" or "Analogue search", and then press **ENTER**.

6 The TV searches for, sorts and stores all the receivable TV stations according to their settings and the connected antenna.
- To abort the initial auto installation in progress, press **RETURN**.

NOTE
- If you turn off the power on the TV while performing a channel search in Step 5, the initial auto installation wizard may not appear. The auto installation function allows you to execute the installation again from "Setup" > "View setting" (Page 35).
- The initial auto installation wizard will abort if you leave the TV unattended for 30 minutes before searching for channels in Step 6.

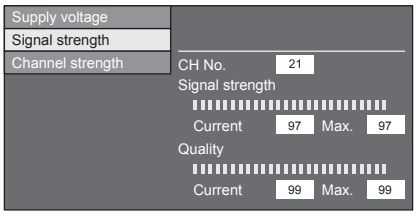
Checking signal strength and channel strength

If you install a DTV antenna for the first time or relocate it, you should adjust the alignment of the antenna to receive a good reception while checking the antenna setup screen.

1 Go to "Menu" > "Setup" > "View setting" > "Channel settings" > "Antenna setup-DIGITAL".

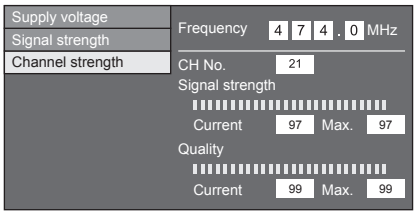
Checking signal strength

2 Press ▲/▼ to select "Signal strength", and then press **ENTER**.



Checking channel strength

3 Press ▲/▼ to select "Channel strength", and then press **ENTER**.
- You can input a specified frequency band using the **0**–**9** numeric buttons.



4 Position and align the antenna so that the maximum possible values for "Signal strength" and "Quality" are obtained.

NOTE
- The values of "Signal strength" and "Quality" indicate when to check the appropriate alignment of the antenna.

Supplying power to the antenna

You can supply power to the antenna in order to receive digitally/terrestrially broadcast stations after connecting the antenna cable to the antenna terminal on the rear of the TV.

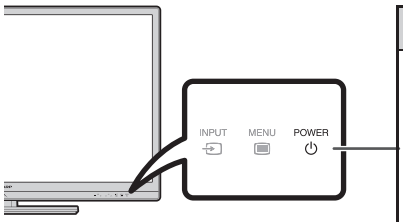
1 Go to "Menu" > "Setup" > "View setting" >"Channel settings" > "Antenna setup-DIGITAL" >"Supply voltage".

2 Press ◀/▶ to select "On", and then press **ENTER**.

Watching TV

Daily operation

Turning on/off the power – using the TV front panel



Turning on/off the power

1 Turn on the power.

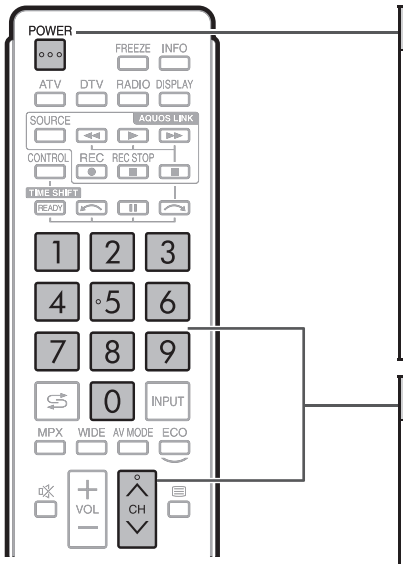
Press **POWER** ⏻ on the TV (after a few seconds, an image appears with sound).

- Wait more than five seconds until you press **POWER** ⏻ on the TV after inserting the power plug.

2 Turn off the power.

Switch it off by pressing **POWER** ⏻ on the TV.

Turning on/off the power – using the remote control unit



Standby mode

1 To standby mode

If the TV is turn on, you can switch it to standby by pressing **POWER** on the remote control unit.

2 Switch on from standby.

From standby, press **POWER** on the remote control unit.

NOTE

- If you are not going to use this TV for a long period of time, be sure to remove the AC cord from the AC outlet.
- A small amount of electric power is still consumed even when the TV is in standby mode.

Changing channels

1 Turn on the power.

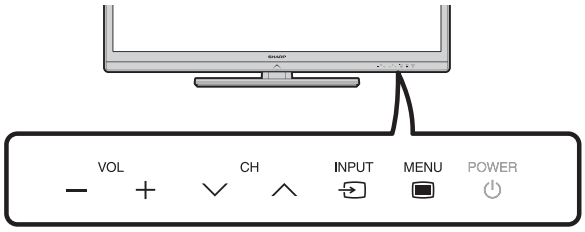
2 Select a programme using **0–9** numeric buttons or **CH**∧/∨ on the remote control unit.

NOTE

- You can also select a programme using **CH**∧/∨ on the TV front panel.

Operation without a remote control unit

You can operate the menu settings using the TV control panel.



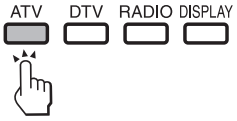
TV control panel buttons	Remote control buttons
MENU ▣	MENU
INPUT ⇥	ENTER
CH ∧/CH ∨	▲/▼
VOL +/VOL −	▶/◀

Switching between digital and analogue broadcasts

Watching digital broadcasts

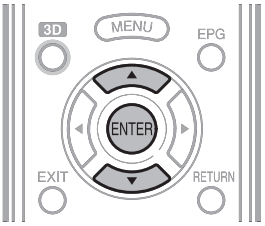


Watching analogue broadcasts



Programme guide

You can check the current schedule of DTV events and view detailed information about current events.



1 Press **ENTER** to display the programme guide list.

2 Press ▲/▼ to display your desired programme, and then press **ENTER**.

- When you press **ENTER**, the TV jumps to the channel.

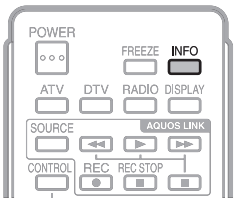


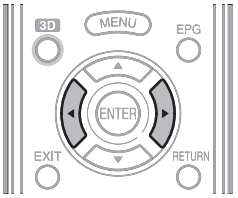
Programme information (DTV)

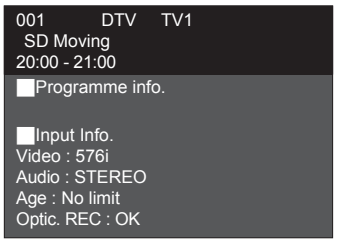
Option

Programme info.

While watching DTV you can check the extended programme information on the screen using **INFO** on the remote control.







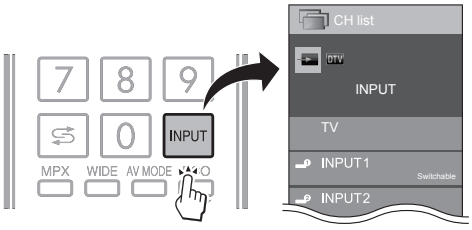
- If there is more information, pressing ◀/▶ allows you to go to the next page or return to the previous page.
- You can cancel this info by pressing **INFO** again.

Using Info on the menu screen

Go to “Menu” > “Setup” > “Option” >“Option for view” > “Programme info.”.

Selecting an external video source

Once the connection is made, press **INPUT** to display the “INPUT” screen, and then press **INPUT** or ▲/▼ to switch over to the appropriate external source with **ENTER**.



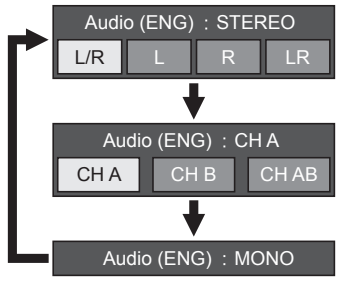
NOTE

- You can also select an external video source from “CH list” > “INPUT”.
- Only inputs which are not set for “Input skip” (Page 40) and properly connected inputs can be selected.
- You can select an external video source for an HDMI connections as shown below.

Connected terminal	Selectable item
HDMI 1	INPUT 4
HDMI 2	INPUT 5
HDMI 3	INPUT 6
HDMI 4	INPUT 7

Switching the digital audio format

If multi sound modes are received, each time you press **MPX** the mode switches as follows.



Press ◀/▶ to select L or R sound when the STEREO or DUAL MONO screen is displayed.



NOTE

- The sound mode screen disappears in six seconds.
- Selectable items vary depending on the received broadcasts.
- When the “Audio description setting” menu is set to “On”, the audio description sound is selected depending on the main audio.

Switching the analogue audio format

You can switch between multiple audio modes when watching a multiple audio or stereo broadcast programme.

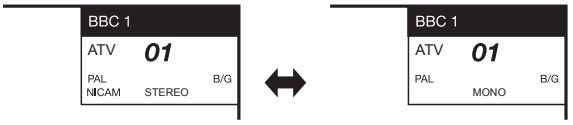


In the NICAM TV broadcasts

When receiving a stereo signal

Each time you press **MPX**, the mode switches between NICAM STEREO and MONO.

Stereo mode



When receiving a bilingual signal

Each time you press **MPX**, the mode switches among NICAM CH A, NICAM CH B, NICAM CH AB and MONO.

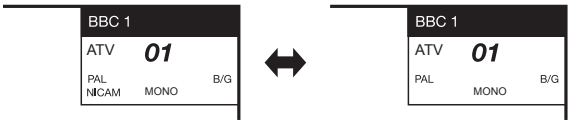
Bilingual mode



When receiving a monaural signal

Each time you press **MPX**, the mode switches between NICAM MONO and MONO.

Monaural mode

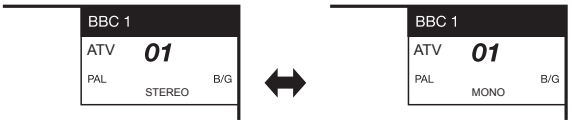


In the TV mode of A2 TV broadcasts

When receiving a stereo signal

Each time you press **MPX**, the mode switches between STEREO and MONO.

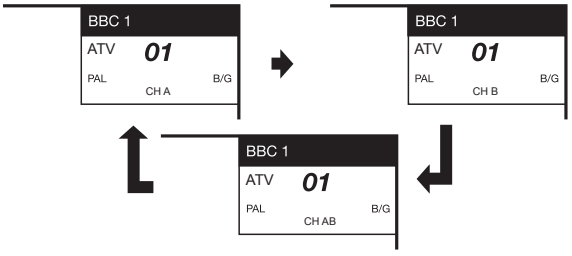
Stereo mode



When receiving a bilingual signal

Each time you press **MPX**, the mode switches among CH A, CH B and CH AB.

Bilingual mode



When receiving a monaural signal

When you press **MPX**, “MONO” displays.

Monaural mode



NOTE

- “BBC1”, “01” and “PAL” are tentative network name, channel and colour system.

Teletext

What is teletext?

Teletext broadcasts pages of information and entertainment to specially equipped TV. Your TV receives teletext signals broadcast by a TV network, and decodes them into graphical format for viewing. News, weather and sports information, stock exchange prices and programme previews are among the many services available.

Turning teletext on/off

1 Select a TV channel or external source providing a teletext programme.

2 Press ☰ to display the teletext.

3 Press ☰ again to display the teletext on the right screen and the normal image on the left screen.

- Many stations use the TOP operating system, while some use FLOF (e.g., CNN). Your TV supports both these systems. The pages are divided into topic groups and topics. After switching on the teletext, up to 2,000 pages are stored for fast access.
- If you select a programme with no teletext signal, "No Teletext available" displays.
- The same message displays during other modes if no teletext signal is available.



- Each time you press ☰, the screen switches as shown above.

NOTE

- Teletext will not work in 3D mode.

Buttons for teletext operations

Buttons	Description
CH∧/∨	Increase or decrease the page number.
Colour (R/G/Y/B)	Select a group or block of pages displayed in the coloured brackets at the bottom of the screen by pressing the corresponding colour (**R**/**G**/**Y**/**B**) on the remote control unit.
Numeric buttons 0–9	Directly select any page from 100 to 899 by using the **0**–**9** numeric buttons.
(Reveal hidden teletext)	Reveal or hide hidden information such as an answer to a quiz.
(Freeze/Hold)	Stop updating teletext pages automatically or release the hold mode.
(Subtitle for teletext)	Display the subtitle or exit the subtitle screen. Subtitles will not be displayed when the service does not contain subtitle information.
(Subpage)	Reveal or hide subpages. Selects directly the desired subpage (0-9). • Move to the previous subpage (**R**). • Move to the following subpage (**G**). • These two buttons are shown on the screen by the symbols "+" and "–".
ENTER	Display the top menu. • The top menu will not be displayed when the service does not support top menus.

View setting

Text language

If Teletext information does not display correctly, perform the procedure below.
Select from among four kinds of language tables: West Europe, East Europe, Greek/Turkish and Cyrillic.
Each table is compatible with the Teletext languages listed below.

1 Go to "Menu" > "Setup" > "View setting" > "Individual setting" >"Text language".



- West Europe — English, French, Scandinavian, Turkish, German, Spanish, Italian
- East Europe — Polish, French, Scandinavian, Czech, German, Slovenian/Croatian, Italian, Rumanian
- Greek/Turkish — English, French, Scandinavian, Turkish, German, Spanish, Italian, Greek
- Cyrillic — English, Russian, Estonian, Czech, German, Slovenian/Croatian, Ukrainian, Lettish

NOTE

- Teletext can display only when it is sent by a network. Not used to convert between languages.

View setting

Initial teletext page

If you set the language of the initial page (this page is displayed for the first time after pressing ☰) for teletext in DTV mode, it will start from the selected language page.

1 Go to “Menu” > “Setup” > “View setting” >“Individual setting” > “Initial teletext page”.

2 Press ▲/▼/◀/▶ to select the desired language, and then press **ENTER**.

NOTE

- This function is available for teletext in DTV mode. This is not available for teletext in ATV or external input mode.
- If the initial teletext page of the selected language in this function is not included in a received broadcast, the default initial page will be displayed.

View setting

MHEG-5 (EPG)

This function is set to enable MHEG-5 in DTV mode.

Go to “Menu” > “Setup” > “View setting” >“Individual setting” > “MHEG-5 (EPG)” .

Item	
Enable	MHEG-5 is displayed during DTV mode.
Disable	MHEG-5 is not displayed during DTV mode.

NOTE

- This function is only displayed for models for the New Zealand market. This function is not displayed for models for the Singapore or Australia market.
- When the country setting is set to “New Zealand” in the initial auto installation, this function is available. When the country setting is set to “Australia” or “Singapore”, this item is greyed out and cannot be selected.
- The MHEG-5 is not displayed when there is no MHEG-5 information on broadcast in setting this function to “Enable”.
- When this function is set to “Enable”, subtitles may not be displayed. If this occurs, set to “Disable” and then display of subtitles will be possible.

EPG

EPG is a programme list that is displayed on the screen. With the EPG, you can check the schedule of DTV/RADIO/DATA, view detailed information about them, tune to an event currently on-air.

Useful settings for using EPG

Basic setting



View setting

EPG

If you want to use the EPG for digital stations, select "Yes". The EPG data must be automatically captured while the TV is in standby mode. After setting to "Yes", it may take some time to turn off the power using the remote control unit or the TV due to the data capture process.

Go to "Menu" > "Setup" > "View setting" > "Individual setting" > "Standby search" > "EPG".

- Selecting EPG to "Yes" will result in higher power consumption*.
- Selecting EPG to "No" will save power consumption.

NOTE

* Approximately 22W for 15–30 minutes (depending on number of channels tuned) after power off from remote control.

- EPG data will not update if the TV is turned off from the main power switch.
- "EPG" cannot be selected when the country setting is set to "New Zealand".

EPG display settings



Option

Display range setup

The "Display range setup" allows you to select three types of time spans for display on the screen.

Go to "Menu" > "Setup" > "Option" > "EPG setup" > "Display range setup".

Item	
Mode 1 (Wide angle)	Displays six hours of programme information.
Mode 2 (Zoom)	Displays three hours of programme information.
Mode 3 (Vertical angle)	Changes to the EPG display format with a vertical time span.

NOTE

- "Display range setup" cannot be selected when the country setting is set to "New Zealand".



Option

Genre icon setup

You can grey out or place a mark on desired genres and smoothly search for programmes you frequently watch.

1 Go to "Menu" > "Setup" > "Option" > "EPG setup" > "Genre icon setup".

2 Press ▲/▼ to select the desired genre, and then press **ENTER**.

Genre icon list

Genre icon list for Australia

Icon	Genre	Icon	Genre
	Movie		Current affairs
	News		Education/ Information
	Entertainment		Infotainment
	Sport		Special
	Children's		Comedy
	Music		Drama
	Arts/Culture		Documentary

Genre icon list for New Zealand

Icon	Genre	Icon	Genre
	Movie/Drama		Music/Ballet/ Dance
	News/Current affairs		Arts/Culture (without music)
	Show/Game show		Social/Political issues/Economics
	Sports		Education/ Science/Factual topics
	Children's/Youth programmes		Leisure hobbies

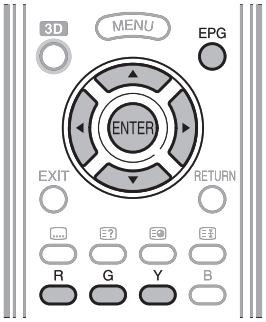
3 Press ▲/▼ to select a level to pick out or search for programmes you want to watch ("Standard", "Light", "Remark").

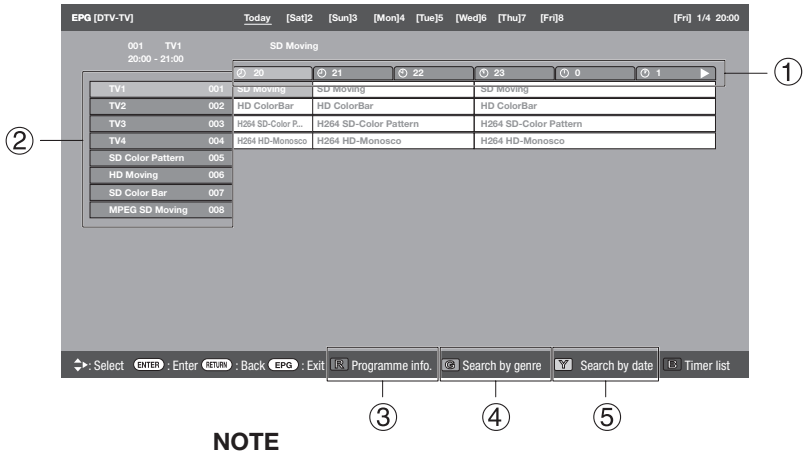
Selecting a programme using EPG

Basic operation

Display the EPG screen

Press **EPG**.





Display the EPG screen

① **Press ◀/▶ to select the time span you want to search.**

- Continue to press ▶ to display programmes in the next time span.

② **Press ▲/▼ to select the desired programme.**

- If ▲ or ▼ are displayed on the left of the services, continue to press ▲/▼ to display next or previous screen.

Close the EPG screen

Press **EPG** again.

NOTE

- You can also display the EPG screen from "Menu" → "EPG" → "EPG".
- The time displayed on the EPG is information sent by the TV station.
- When the country setting is set to "New Zealand", the EPG screen and operation differ due to the use of MHEG-5 EPG. The EPG screen and operation vary depending on the broadcasts.
- When the country setting is set to "New Zealand", the EPG function is not available when MHEG-5 EPG is not broadcasted.
- MHEG-5 EPG may not be displayed properly in the 3D mode. If so, cancel the 3D mode and then MHEG-5 EPG will be available.
- The MHEG-5 EPG function is not available for models for the Australia market.

Selecting a programme

③ **Check programme information**

1 Press ▲/▼/◀/▶ to select the programme you want to check.

2 Press **R**.

Programme information



3 Press **ENTER** to tune to the selected programme.

NOTE

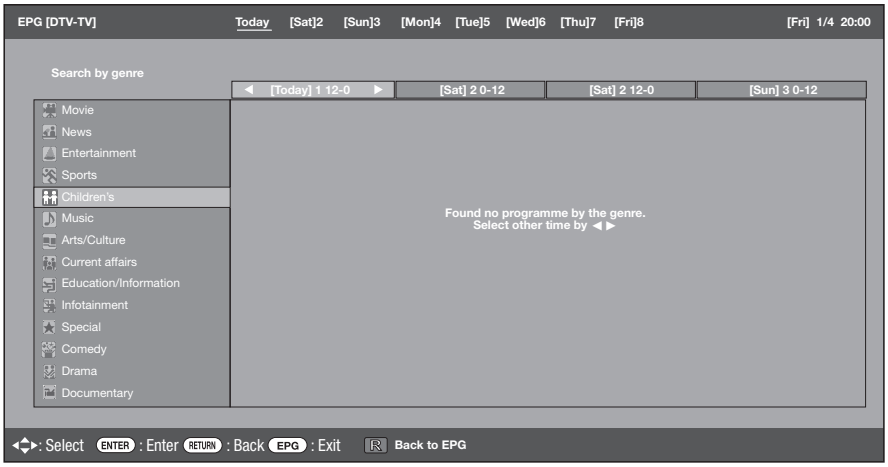
- When the country setting is set to "New Zealand", this function is not available due to the use of MHEG-5 EPG.

④ Search a programme in a category

1 Press **G**.

2 Press ▲/▼ to select the desired genre, and then press **ENTER**.

3 Press ▲/▼ to select a programme you want to watch, and then press **ENTER**.



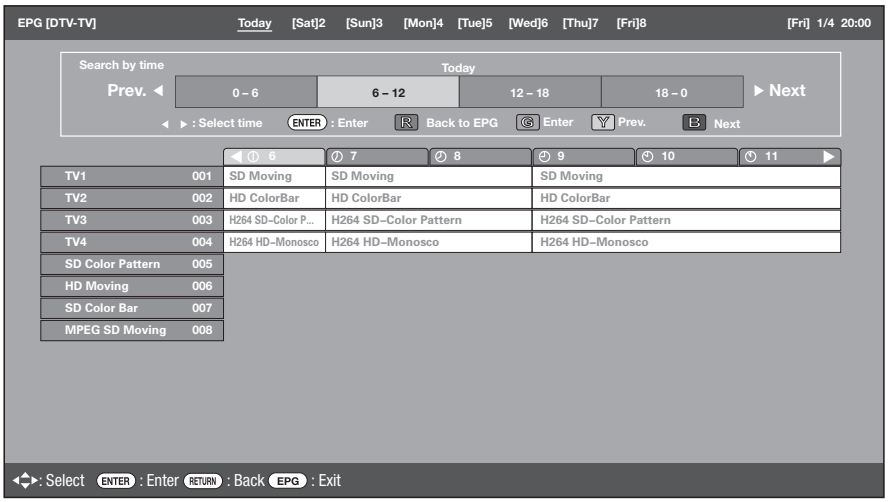
NOTE

- The genre information depends on the broadcasts.
- You can also display the EPG screen from “Menu” → “EPG” → “Search by genre”.
- When the country setting is set to “New Zealand”, this function is not available due to the use of MHEG-5 EPG.

⑤ Search for a programme by date/time

1 Press **Y**.

2 Press ◀/▶ to select the desired time span and then press **ENTER**.



3 Press ▲/▼ to select the desired programme, and then press **ENTER**.

NOTE

- When you select a programme outside of the current time span, the timer setting screen displays (Page 24).
- You can also display the EPG screen from “Menu” → “EPG” → “Search by date”.
- When the country setting is set to “New Zealand”, this function is not available due to the use of MHEG-5 EPG.

⑥ Display the timer list for TV programmes

Press **B**.

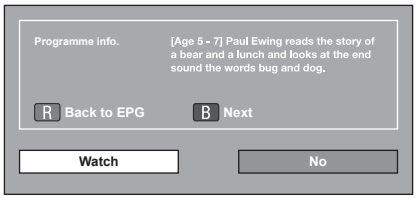
- Refer to page 24 for the timer setup.

Timer setup using EPG

You can switch to a programme at a set time.

1 Press **EPG**.

2 Press ▲/▼/◀/▶ to select the programme you want to set, and then press **ENTER**.



3 Press ◀/▶ to select “Watch”, and then press **ENTER**.
- If you select “No”, the TV returns to the EPG screen.

4 Press ◀/▶ to select “Yes”, and then press **ENTER**.
- The selected TV programme is marked with an icon.

5 Press **ENTER** to select “Back”.

Cancelling the timer setup

1 Press **EPG**.

2 Press ▲/▼/◀/▶ to select the programme with timer setup, and then press **ENTER**.

3 Press ◀/▶ to select “Cancel”, and then press **ENTER**.

4 Press ◀/▶ to select “Yes”, and then press **ENTER**.

Cancelling using B button on the remote control unit

1 Press **EPG**.

2 Press **B** to display the timer setup list.

3 Press ▲/▼ to select the programme you want to cancel timer setup, and then press **ENTER**.

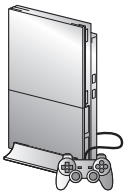
4 Press ◀/▶ to select “Cancel”, and then press **ENTER**.

5 Press ◀/▶ to select “Yes”, and then press **ENTER**.

Connecting external devices

Before connecting ...

- Be sure to turn off the TV and any devices before making any connections.
- Firmly connect a cable to a terminal or terminals.
- Carefully read the operation manual of each external device for possible connection types. This also helps you get the best possible audiovisual quality to maximise the potential of the TV and the connected device.
- Refer to page 56 for connecting a PC to the TV.

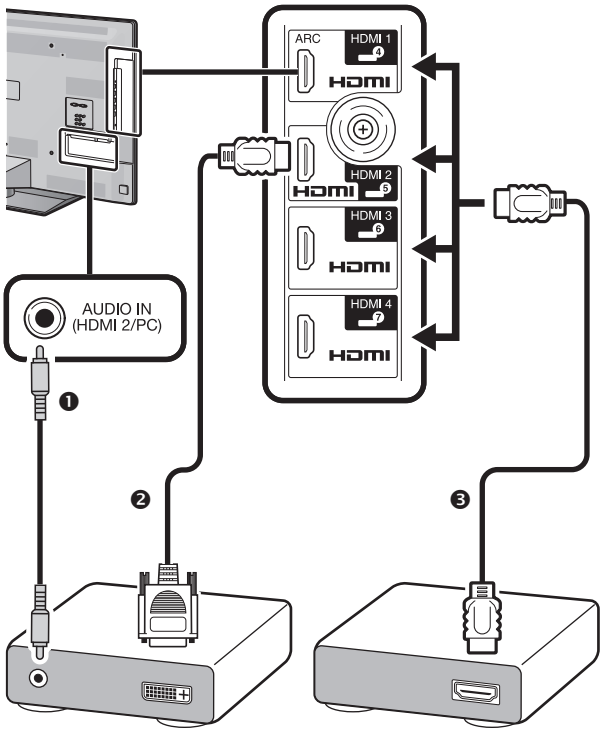
Connection cable (Connection code)	Image quality/ Audio quality	Connectable devices	Reference page
HDMI cable 	Excellent in both image quality and audio quality	 Reproduction devices such as a DVD player  Game console	26
DVI/HDMI cable/3.5 mm stereo minijack cable 	Good image quality		
Component cable  **Audio cable** 	Average in both image quality and audio quality	 Reproduction devices such as a DVD player	27
AV cable (Supplied)  **Composite cable** 	Average in both image quality and audio quality	 Reproduction devices such as a DVD player  Game console	27
Optical audio cable 	Excellent in audio quality	 Audio equipment	27
Stereo conversion cable 	Average in audio quality		

Video connections

HDMI connection

Example of connectable devices
- DVD player/recorder
- Blu-ray player/recorder
- Game console

The HDMI connections permit digital video and audio transmission via a connection cable from a player/recorder. The digital picture and sound data are transmitted without data compression and therefore lose none of their quality. Analogue/digital conversion is no longer necessary in the connected devices, which also would result in quality losses.



❶ ø 3.5 mm stereo minijack cable (commercially available)
❷ DVI/HDMI cable (commercially available)
❸ HDMI-certified cable (commercially available)

DVI/HDMI conversion

Using a DVI/HDMI cable, the digital video signals of a DVD can also be played via the compatible HDMI connection. The sound must be fed in additionally.
- When connecting a DVI/HDMI cable to the HDMI terminal, the image may not come in clearly.
- Both HDMI and DVI use the same HDCP copy protection method.

When using the HDMI 2 terminal

You must set the audio signal input source depending on the type of HDMI cable connected (refer to page 40 for details).

HDMI-certified cable

1 Press **INPUT** to select “HDMI2” from the “INPUT” menu, and then press **ENTER**.

2 Go to “Menu” > “Setup” > “Option” > “Terminal setting” > “Audio select” > select “HDMI (Digital)”.

DVI/HDMI cable

1 Press **INPUT** to select “HDMI2” from the “INPUT” menu, and then press **ENTER**.

2 Go to “Menu” > “Setup” > “Option” > “Terminal setting” > “Audio select” > select “HDMI + Analog”.

NOTE
- **If a connected HDMI device is AQUOS LINK compatible, you can take advantage of versatile functions (Pages 28–30).**
- Video noise may occur depending on the type of HDMI cable used. Make sure to use a certified HDMI cable.
- When playing the HDMI image, the best possible format for the picture will be detected and set automatically.
- An ARC (Audio Return Channel) compatible audio receiver must be connected to the HDMI 1 terminal with an ARC-compatible cable.
- All HDMI terminals support 3D image signals.

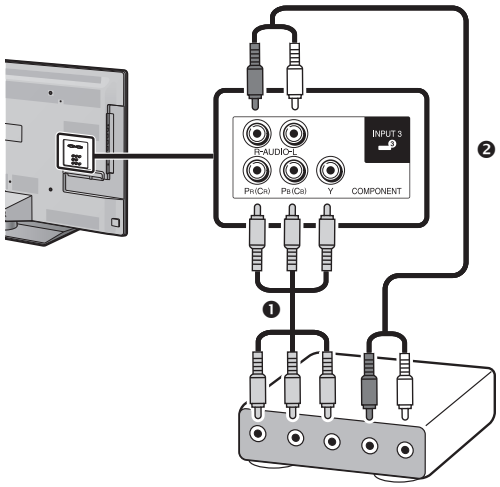
Supported video signal

576i, 576p, 480i, 480p, 1080i, 720p, 1080p
See page 57 for PC signal compatibility.

Component connection

Example of connectable devices
- VCR
- DVD player/recorder

You will enjoy accurate colour reproduction and high quality images through the INPUT3 terminal when connecting a DVD player/recorder or other device.

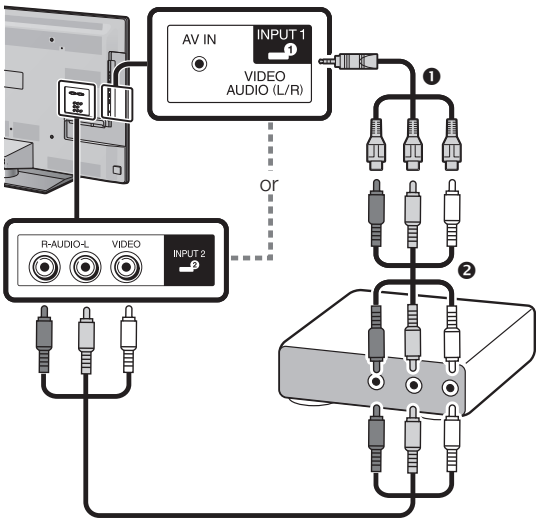


❶ Component cable (commercially available)
❷ Audio cable (commercially available)

VIDEO connection

Example of connectable devices
- VCR
- DVD player/recorder
- Game console
- Camcorder

You can use the INPUT1 or INPUT2 terminal when connecting to a game console, camcorder, a DVD player/recorder or other device.



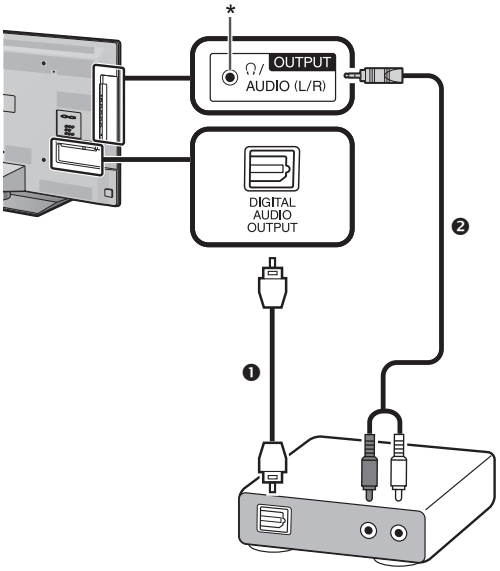
❶ AV cable (supplied accessory)
❷ Composite cable (commercially available)

Audio connections

Speaker/amplifier connection

Connect an amplifier with external speakers as shown below.

Connecting an amplifier with digital/ analogue audio inputs



❶ Optical audio cable (for digital audio) (commercially available)
❷ Stereo conversion cable (for analogue audio) (commercially available)

* This terminal is also used for headphones. Reduce the volume before using headphones. Overwhelming sound may damage your hearing.

NOTE
- Optical digital audio will be output in 2-ch stereo when it is from the external equipment connected to the TV using an HDMI cable.
- If the image is not in sync with the audio, check the settings of the connected surround system.

After connecting

Digital audio output setting

After connecting an amplifier with digital audio input and external speakers as shown, you should set an audio output format compatible with the programme you are watching or the device connected.

Go to “Menu” > “Setup” > “Option” > “Terminal setting” > “Digital audio output” > select “PCM” or “Dolby Digital”.

NOTE
- When set to “Dolby Digital”, Dolby Digital is output when the Dolby Digital or Dolby Digital Plus audio formats are received. When set to “PCM”, PCM is output no matter what audio formats are received.
- When set to “Dolby Digital”, HE-AAC audio formats can be output as Dolby Digital.

AQUOS LINK

Controlling HDMI devices using AQUOS LINK

What is AQUOS LINK?

Using the HDMI CEC protocol, with AQUOS LINK you can interactively operate compatible system devices (AV amplifier, DVD player/recorder, Blu-ray player/recorder) using a single remote control unit.
By connecting AQUOS LINK-compatible devices with HDMI-certified cables to the TV, you can control a recorder or AV amplifier using the remote control of the TV.

NOTE

- Check the availability of AQUOS LINK-compatible AQUOS BD Players and AQUOS LINK-compatible audio systems in your country.
- AQUOS LINK does not work while using time shift functions.

What you can do with AQUOS LINK

✔ One touch play

When the TV is in standby mode, it will automatically turn on and play back the image from the HDMI source.

✔ Operating title list of external devices

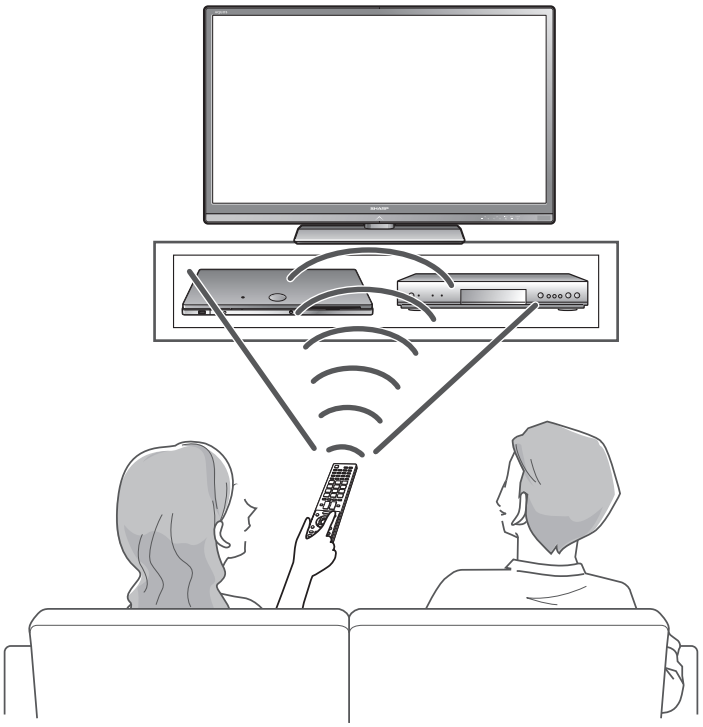
You can also call up the external player's top menu or AQUOS BD player's/AQUOS recorder's title list provided that the devices support AQUOS LINK.

✔ Controlling the AQUOS LINK-compatible audio system

You can adjust the volume and select the sound mode of the AQUOS LINK-compatible audio system.

✔ Multiple control of HDMI devices

You can select which HDMI device to operate using the "Link operation" menu.



✔ Single remote control operation

AQUOS LINK automatically recognises connected HDMI devices and you can control the TV and the devices as if using a universal remote control unit.

NOTE

- When you use AQUOS LINK, make sure to use a certified HDMI cable.
- Point the remote control unit toward the TV, not to the connected HDMI device.
- Video noise may occur depending on the type of HDMI cable used. Make sure to use a certified HDMI cable.
- Up to three HDMI recording devices, one AV amplifier and three players can be connected using this system.
- These operations affect the HDMI device selected as the current external source. If the device does not operate, turn on the device and select the appropriate external source using **INPUT**.
- When you insert/remove HDMI cables or change connections, turn on all connected HDMI devices before turning on the TV. Confirm that picture and audio are correctly displayed/output by selecting "HDMI1", "HDMI2", "HDMI3" or "HDMI4" from the "INPUT" menu.

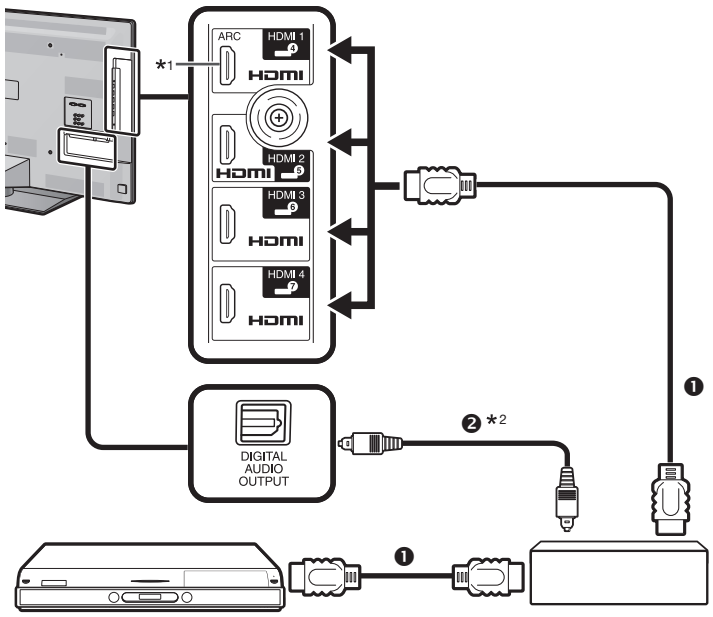
AQUOS LINK connection

First connect the AQUOS AUDIO speaker system or an AQUOS BD player/AQUOS recorder that supports the HDMI CEC protocol.

NOTE

- Refer to the operation manual of the device to be connected for further details.
- After unplugging connection cables or changing the connection pattern, turn on the power of the TV after all relevant devices' power have been turned on. Change the external input source by pressing **INPUT**, select the appropriate external source and verify the audiovisual output.
- The four buttons (◀◀, ▶, ▶▶, ■) connected by a green line are used for time shift operations for the time shift function.

Connecting an AQUOS BD player/AQUOS recorder via the AQUOS AUDIO speaker system



AQUOS BD player/AQUOS recorder **AQUOS AUDIO speaker system**

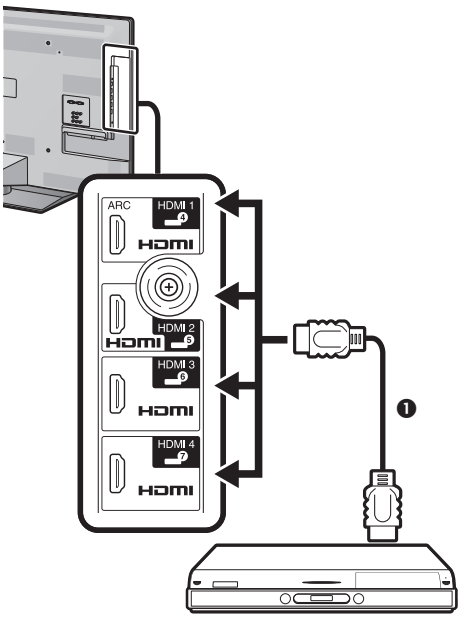
❶ HDMI-certified cable (commercially available)

❷ Optical audio cable (commercially available)

*1 The ARC (Audio Return Channel) function works only when using the HDMI1 terminal.

*2 When you use an audio system compatible with the ARC function of the TV, you do not need to connect an optical audio cable to the TV.

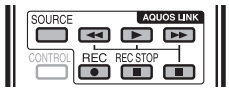
Connecting an AQUOS BD player/AQUOS recorder only



AQUOS BD player/AQUOS recorder

Operating an AQUOS LINK device

AQUOS LINK allows you to operate the HDMI-connected device with a single remote control unit.



Use the following procedure to start playback.

1 Press ▶ to start playback of a title.
- See the section **Top menu/title list** if you want to start playback using the list of the titles in the AQUOS BD player/AQUOS recorder.

2 Press ▶▶ to fast forward.

Press ◀◀ to reverse.

Press ■ to stop.

Press **SOURCE** to turn the HDMI-connected device on/off.

Use the following procedure to start recording.

Check the following items before recording.
- Make sure the antenna cable is connected properly.
- Check if the recording media (HDD, DVD, etc.) has enough capacity for recording a programme.
- Select the equipment for recording in Selecting Recorder.

1 After you selected recording media (HDD, DVD, etc.) in the menu, please make sure the recording menu in the ready condition.

2 Press **REC** ● to start recording.

3 Press **REC STOP** ■ to stop recording.

AQUOS LINK menu

Go to “Menu” > “Link operation” > select the menu you want to set.

Link Operation	Description	Note
Recorder power on/off	This function is for turning of the CEC-compatible recorder on/off. Every time you press **ENTER** in “Recorder power on/off”, the CEC-compatible recorder will be turned on/off.	• Refer to the operation manual of the recorder for details.
Top menu/title list	This section explains how to play back a title in the AQUOS BD player/AQUOS recorder. Press **MENU** to hide the menu screen to operate ▲/▼/◀/▶ buttons. Select the title with ▲/▼/◀/▶, and then press ▶.	• The linked recorder now powers on and the TV automatically selects the appropriate external input source. • The title list data from the connected AQUOS BD player/AQUOS recorder displays.
Setup menu	You can call up the menu of an HDMI CEC-compatible external device (player, recorder, etc.) using the “Setup menu” function.	• If a connected device does not have this function or the device is in a status where the menu cannot be displayed (recording, entering standby, etc.), this function may not be available.
Media change	If your recorder has multiple storage media, select the media type here. Select the desired medium, such as DVD recorder or HDD. The media type changes every time you press **ENTER**.	
Recorder EPG	You can call up the CEC-compatible recorder’s EPG and preset timer recordings using the TV’s remote control. Select the programme to record.	• The external input source switches and the recorder’s EPG is displayed. • You can use ▲/▼/◀/▶, **RETURN**, **EXIT** and the coloured buttons. • Refer to the operation manual of the recorder for details.
Change audio output device	You can choose to listen to the TV sound only from the AQUOS TV speaker system.	
Sound mode change	You can manually change the AQUOS AUDIO speaker system’s sound mode. The sound mode changes every time you press **ENTER**.	• Refer to the operation manual of the AQUOS AUDIO speaker system for details.
Model select	If multiple HDMI devices are connected in a daisy chain, you can specify which device to control here. The HDMI device changes every time you press **ENTER**.	
AQUOS LINK setup		

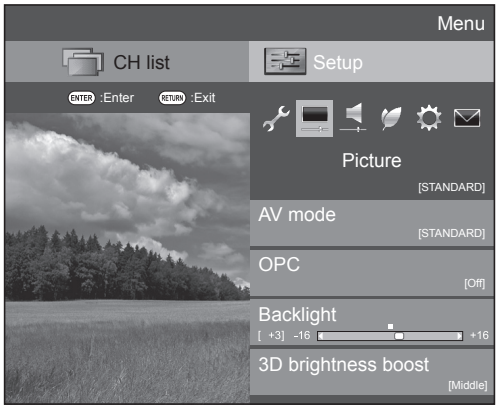
AQUOS LINK control	Set to “On” to enable HDMI CEC functions.	
Auto power on	If this is activated, the one touch play function is enabled. While the TV is in standby mode, it automatically turns on and plays back the image from the HDMI source.	• The factory default for this item is “Off”.
Selecting recorder	Here, you can select a recorder for the recording from several connected recorders.	• If you have connected the AQUOS AUDIO speaker system between the TV and an AQUOS recorder, the external source’s indication changes (e.g., from “HDMI1” to “HDMI1 (Sub)”).
Selecting channel key	This function allows you to select the channel of the connected HDMI device using the TV’s remote control unit. Press ▲/▼ to select the input source of the connected HDMI device you want to control using the TV’s remote control unit, and then press **ENTER**. Press ◀/▶ to select “On”, and then press **ENTER**.	
Audio return channel	If this function is set to “Auto”, the TV can send audio data for video content shown on the TV to a connected audio device with just one ARC-compatible cable. Using this function eliminates the need to use a separate digital or analogue audio cable.	• The ARC (Audio Return Channel) function works only when using the HDMI1 terminal.

Connection for using “Audio return channel”

- You need to use ARC-compatible cables/devices and connect to the HDMI1 terminal to activate this function. The connection method is the same as **Connecting an AQUOS BD player/AQUOS recorder via the AQUOS AUDIO speaker system** (Page 29).

Picture settings

Go to “Menu” > “Setup” > “Picture”.



NOTE

- After selecting a menu such as “AV mode”, “OPC”, “Backlight”, “Contrast”, “Brightness”, “Colour”, “Tint” and “Sharpness”, you can adjust while viewing more of the screen area by pressing **ENTER** to make the menu smaller.
- For resetting all adjustment items to factory preset values, press ▲/▼ to select “Reset”, press **ENTER**, press ▲/▼ to select “Yes”, and then press **ENTER**.

Picture

AV mode

“AV mode” gives you several viewing options to choose from to best match the system environment, which can vary due to factors like room-brightness, type of programme watched or the type of image input from external equipment.

Press ▲/▼ to select the desired mode, and then press **ENTER**.

- You can also switch the mode on the “Picture” and “Audio” menu screen by pressing **AV MODE**.

Item	
AUTO	The TV automatically sets the appropriate selection from the “AV mode” menu depending on the lighting conditions and the type of programme watched.
STANDARD	For a highly defined image in a normally bright room.
MOVIE	For viewing a movie in a darkened room.
GAME	For playing of video games.
PC*1	For PC.
USER	Allows you to customise settings as desired. You can set the mode for each input source.
x.v.Colour*2	Produce realistic colour on the TV screen unlike any other signal.
DYNAMIC	For a clear-cut image emphasising high contrast for sports viewing.
DYNAMIC (Fixed)	For a clear-cut image emphasising high contrast for sports viewing (the “Picture” and “Audio” settings cannot be adjusted).
STANDARD (3D)	Refer to page 62 for details.
MOVIE (3D)	
GAME (3D)	

NOTE

*1 “PC” is available only when selecting “HDMI1”, “HDMI2”, “HDMI3”, “HDMI4” or “PC” from the “INPUT” menu.

*2 “x.v.Colour” is available only when accepting an “x.v.Colour” signal through an HDMI terminal.

- You can select a different “AV mode” item for each input mode (for example, select “STANDARD” for TV input and “DYNAMIC” for VIDEO input).
- If you select “AUTO”, some selections in the “AV mode” menu may not be automatically set.

Picture

OPC

Automatically adjusts the brightness of the screen.

Item	
Off	The brightness is fixed at the value set in “Backlight”.
On	Automatically adjusts.
On:Display	Displays the OPC effect on the screen while adjusting the brightness of the screen.

NOTE

- When set to “On”, the TV senses the surrounding light and automatically adjusts the backlight brightness. Make sure no object obstructs the OPC sensor, which could affect its ability to sense surrounding light.
- When “Backlight” is adjusted, “OPC” is set to “Off”.

Picture

Picture adjustments

Adjusts the picture to your preference with the following picture settings.

Adjustment items

Selectable items	◄ (Cursor)	► (Cursor)
Backlight	The screen dims	The screen brightens
Contrast	For less contrast	For more contrast
Brightness	For less brightness	For more brightness
3D brightness boost	Refer to page 62 for details.	
Colour	For less colour intensity	For more colour intensity
Tint	Skin tones become purplish	Skin tones become greenish
Sharpness	For less sharpness	For more sharpness

NOTE

- “OPC”, “Backlight” and “Range of OPC” are not available when “High” or “Low” is selected in “3D brightness boost”.



Picture

Advanced

This TV provides various advanced functions for optimising the picture quality.

Go to “Menu” > “Setup” > “Picture” > “Advanced”.

C.M.S.-hue

This function adjusts the hue of a selected colour using a six-colour adjustment system.

C.M.S.-saturation

This function increases or decreases the saturation of a selected colour using a six-colour adjustment system.

C.M.S.-value

This function adjusts the brightness of a selected colour using a six-colour adjustment system.

Colour gamut range

Adjusts the range of a subset of colour to display the image. Expanded colour gamut means more colourfulness; images become more vivid.

Item	
Standard	Standard colour gamut.
Expanded	More vivid colour with expanded colour gamut.

NOTE

- This function is available only when selecting “MOVIE” or “MOVIE (3D)” from the “AV mode” menu.

Colour temp.

Adjusts the colour temperature to give the best white image.

Item	
High	White with bluish tone.
Mid-High	Intermediate tone between “High” and “Middle”.
Middle	Natural tone.
Mid-Low	Intermediate tone between “Middle” and “Low”.
Low	White with reddish tone.
10 point setting*	Finely adjusts each colour temperature between 1 to 10 points.
R/G/B Gain (LO), R/G/B Gain (HI)	Adjusts the white balance by changing the value of each item.

* “10 point setting” is available only when selecting “STANDARD”, “MOVIE”, “STANDARD (3D)”, or “MOVIE (3D)” from the “AV mode” menu.

AQUOMOTION

“AQUOMOTION” technologies provide superior solutions for digital display picture quality removing motion blur (“Scan”, “High”, “Low”, “Off”).

NOTE

- This effect is greater on fast moving images.
- This function will have no effect in the following cases.
  1) The type of signal received is a PC signal.
  2) An OSD is being displayed.
  3) Teletext is activated.
- If images appear blurred, set to “Off”.

Quad pixel plus

Reproduces high-definition images with higher resolution.

Gamma adjustment

Selects the tone difference of the brightness and darkness of the image according to the type of programme watched from a maximum of + 2 to a minimum of − 2.

Film mode

Automatically detects a film-based source (originally encoded at 24 or 25 frames per second, depending on the vertical frequency), analyses it and then recreates each still film frame for high-definition picture quality (“Advanced (High)”, “Advanced (Low)”, “Standard”, “Off”).

NOTE

- Film mode is not selectable depending on the input signal type.

Active contrast

Automatically adjusts the contrast of an image according to the scene.

DNR

“DNR” produces a clearer image (“Auto”, “High”, “Middle”, “Low”, “Off”).

NOTE

- This function may not be available depending on the input signal type.

Monochrome

For viewing a video in black & white.

Range of OPC

The brightness level range of the OPC sensor’s automatic adjustments can be set according to your preferences. The adjustment range of the OPC sensor can be set to a maximum of + 16 and a minimum of − 16.

NOTE

- This function is available only when the “OPC” setting is set to “On” or “On:Display”.
- The maximum setting cannot be set to a smaller number than the minimum setting.
- The minimum setting cannot be set to a bigger number than the maximum setting.
- The maximum and minimum settings cannot be set to the same number.
- Depending on the brightness of the surrounding light, the OPC sensor might not operate if the adjustment range is small.

Audio settings

Go to “Menu” > “Setup” > “Audio”.



Audio
Auto volume

Different sound sources sometimes do not have the same volume level, such as a programme and its commercial breaks. This function reduces this problem by equalizing levels.

Item	
High	Strongly reduces the volume gaps among different sound sources.
Middle	⬍
Low	Slightly reduces the volume gaps among different sound sources.
Off	Does not adjust the volume gaps.

Audio
Audio adjustment

You can adjust the sound quality to your preference with the following settings.

Item	◀ (Cursor)	▶ (Cursor)
Treble	For weaker treble	For stronger treble
Bass	For weaker bass	For stronger bass
Balance	Decrease audio from the right speaker	Decrease audio from the left speaker

NOTE

- For resetting all adjustment items to factory preset values, press ▲/▼ to select “Reset”, press **ENTER**, press ▲/▼ to select “Yes”, and then press **ENTER**.

Audio
Surround

This function produces a surround effect from the speakers.

Item	
3D Hall	Reproduces a concert hall experience with realistic live surround sound based on reverberant sounds measured in a concert hall.
3D Movie	Reproduces a movie theater experience with realistic live surround sound based on reverberant sounds measured in a movie theater.
3D Standard	Creates three-dimensional surround sound with detailed control of the signal phase.
SRS TS HD	SRS TruSurround HD™ creates a high quality surround sound experience, when watching DVD movies and TV programmes broadcast in surround sound.
Off	Outputs normal sound.

Audio
Bass enhancer

This function allows you to enjoy bass-enhanced sound.

Audio
Clear voice

This function emphasises speech against background noise for greater clarity.

Audio
Audio description setting

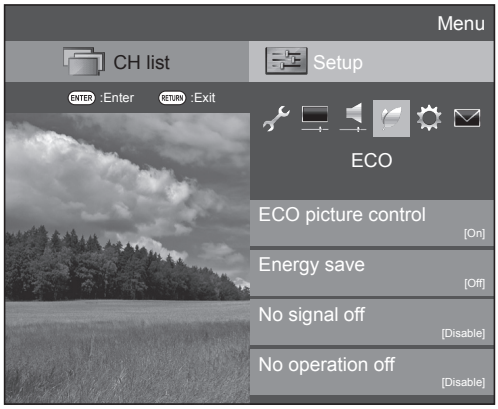
This function allows you to enable output of audio description if the TV receives a signal including audio description.

NOTE

- When the “Audio description” is set to “On”, the audio description sound is superimposed on the main audio when you select a broadcast compatible with audio description.
- If you do not clearly hear the sound for the visually impaired, go to “Menu” > “Setup” > “Audio” > “Audio description setting” > “Mix level”, and select the upper level to turn up the volume.
- This function is available only for DTV broadcasts. This “Audio description setting” menu is not displayed for the ATV or the external inputs.
- The audio description sound is superimposed on the main audio only when the sound is output on the speaker sound output, headphone sound output and sound for audio out output. The sound is not output on the S/PDIF sound output and the HDMI sound output.
- This function is not available for the AQUOS Audio speaker system.
- This function does not work during time shift playback.

Power save settings

Go to “Menu” > “Setup” > “ECO”.



NOTE
- You can also select “ECO” by pressing **ECO**.

ECO
ECO picture control

This function automatically detects the image source and decreases the power consumption while keeping the brightness of the image unchanged.

NOTE
- This function does not work when “AV mode” is set to “DYNAMIC (Fixed)”, “DYNAMIC” or “AUTO”.
- This function does not work when “Energy save” is set to “Standard” or “Advanced”.
- This function is greyed out in 3D mode.

ECO
Energy save

This function enables you to reduce the backlight brightness in order to decrease the power consumption and increase the backlight life span as shown in the following table.

Item	
Standard	Reduces the backlight brightness.
Advanced	Reduces the backlight brightness more than “Standard”.
Off	The backlight brightness is the same value of your settings in the selected “AV mode”.

When “Energy save” is set to “Standard” or “Advanced”, “Energy save” status icons appear in the “Picture” menu and channel information windows.

NOTE
- This function does not work when “AV mode” is set to “DYNAMIC (Fixed)”.
- This function does not work when “3D brightness boost” is set to “High” or “Low”.

ECO
No signal off

When set to “Enable”, the TV will automatically enter standby mode if there is no signal input for 15 minutes.

NOTE
- Even if a TV programme finishes, this function may not operate because of interference from other TV stations or other signals.

ECO
No operation off

You can set the TV to automatically power off when no TV operation is performed for 30 minutes or 3 hours.

NOTE
- “Disable” is the factory preset value.

ECO
Sleep timer

Allows you to set a time when the TV automatically enters standby mode. You can set the time span for entering standby mode after selecting “Change”.

NOTE
- Select “Off” to cancel the sleep timer.
- When the time has been set, countdown automatically starts.
- Five minutes before the preset of time expires, the remaining time displays each minute.

ECO
Audio only

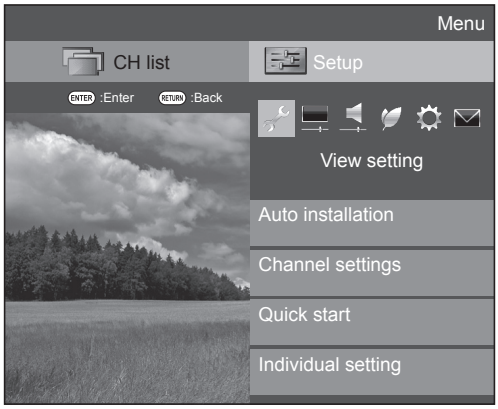
When listening to music from a music programme, you can set the TV off and enjoy audio only.

Item	
On	Audio is output without a screen image.
Off	Both screen images and audio are output.

NOTE
- When you make operations that change the picture on the TV such as by changing the input source, the “Audio only” function is set to “Off”.

Channel settings

Go to “Menu” > “Setup” > “View setting”.



View setting

Auto installation

The TV automatically detects and stores all available services in your area. This function also allows you to perform the channel setting and reconfigure the settings after the initial auto installation has been completed.

1 Go to “Menu” > “Setup” > “View setting” > “Auto installation”.

2 If you have already set the password, enter it here.
- See page 37 for setting a password.

3 Press ◀/▶ to select “Yes”, and then press **ENTER**.

4 Press ▲/▼ to select the desired language, and then press **ENTER**.
- You do not need to do anything during the auto search.

5 Press ▲/▼ to select “Digital search” or “Analogue search”, and then press **ENTER**.
- When the country setting is set to “Australia”, only “Digital search” is available.

NOTE
- You cannot set the Home/Store setting and the country setting in “Auto installation” in the “Setup” menu. If you want to reconfigure those settings, automatically execute initial auto installation after executing “Reset” from the “Setup” menu.
- The current country setting is displayed on the screen.

View setting

Programme setup

You can run the auto search procedure again at any time by accessing the “Setup” menu and “Programme setup”. Channels can be tuned automatically or manually.

Digital setting

You can reconfigure the DTV channel settings automatically or manually.

1 Go to “Menu” > “Setup” > “View setting” > “Channel settings” > “Programme setup”.

2 If you have already set the password, enter it here.
- See page 37 for setting a password.

3 The “Digital setting” screen displays, and then press **ENTER**.

4 Press ▲/▼ to select the desired menu item, and then press **ENTER**.

5 Press ◀/▶ to select “Yes”, and then press **ENTER**.

Additional search

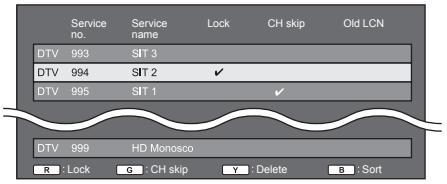
Use this menu to add new services automatically after “Auto installation” has been completed.
- Start searching channels after selecting the colour system and sound system.

Manual search

Add new services within a specified frequency band.
- Enter the frequency using **0**–**9** numeric buttons.

Manual adjust

Configure various settings for each service using the colour (**R**/**G**/**Y**/**B**) buttons.



1 Press ▲/▼ to select the desired service.

2 Press the colour button on the remote control unit corresponding with the item you want to reconfigure.
- The ✔ mark indicates the operation is set to on. Each time the colour button is pressed, you can switch the corresponding operation on/off.

Buttons for “Manual adjust” operation

Lock	Press **R** button.

When the service is locked, you must enter your password whenever you tune to the service.

CH skip	Press **G** button.

Services with a ✔ mark are passed over when pressing **CH**∧/∨ on the TV or remote control unit.

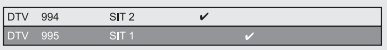
Delete	Press **Y** button.

The selected service is deleted. If you want to watch the service you deleted once again, perform “Auto installation”, “Additional search”, or “Manual search”.

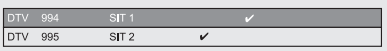
Sort	Press **B** button.

The item position of services can be sorted.

① Press ▲/▼ to select the service whose item position you want to move, and then press **ENTER**.



② Press ▲/▼ to move it to the desired position, and then press **ENTER**.



③ Repeat steps 1 and 2 until all desired service items are sorted.

Analogue setting

1 Repeat steps 1 and 2 in **Digital setting**.
2 The “Analogue setting” screen displays, and then press **ENTER**.
3 Repeat steps 4 and 5 in **Digital setting**.

NOTE
- The “Analogue setting” menu is available only for watching TV in ATV mode.

Additional search

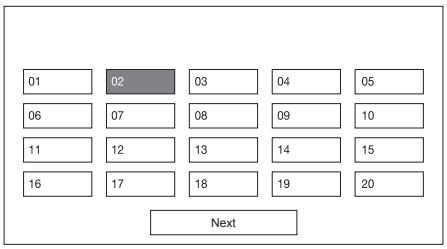
Use this menu to add new services automatically after “Analogue search” in the “Auto installation” menu has been completed.
- Start searching channels after selecting the colour system and sound system.

Manual adjust

You can reconfigure the analogue TV channels settings automatically or manually.

After selecting “Yes” on the screen, press ▲/▼/◀/▶ to select the channel you want to set and then press **ENTER**.

Programme Setup “Manual Adjust” menu



You can select one of the following settings.

Search

You can add a new channel within a specified frequency band.

Item	
Next	Search the next channel.
Store	Memorise the current display channel.
Cancel	Return to the previous screen (the search result will not be stored).

Fine

You can adjust the frequency to the desired position.

NOTE
- Adjust while checking the background picture as a reference.
- Instead of pressing ◀/▶ to adjust the frequency, you can set by directly entering the frequency number of the channel with **0**–**9** numeric buttons.
- When setting a frequency on the “Fine” screen, the last figure of the frequency needs to be “0” or “5”.

EXAMPLE
- 179.25 MHz: Press 1 > 7 > 9 > 2 > 5.
- 49.25 MHz: Press 4 > 9 > 2 > 5 > **ENTER**.

Colour sys.

Select the optimum colour system to receive (“Auto”, “PAL”, “SECAM”, “NTSC3.58”, “NTSC4.43”).

Sound sys.

Select the optimum sound systems (broadcasting systems) to receive (“B/G”, “D/K”, “I”, “M”).

NOTE
- Check the sound system if the sound output were not correct.

Label

When a TV channel sends its network name, the “Auto installation” detects the information and assigns a name to it. However, you can change channel names individually.

Select each character of the new name for the channel with using the software keyboard (see page 14).

NOTE
- The name can be five characters or less. Select “Cancel” to set the channel name.

Skip

Channels with “Skip” set to “On” are passed over when using **CH**∧/∨ even if selected while watching the image from the TV.

Lock

You can block the viewing of any channel.

NOTE
- See page 37 for setting a password.
- When “Lock” is set to “On” for a channel, “Child lock has been activated” displays, and the image and sound of the channel are blocked.
- When pressing **RETURN** while “Child lock has been activated” displays, the password input window will display. Inputting the correct password unlocks the “Password” temporarily until the power is turned off.

Sort

Channel positions can be sorted freely.

1 Press ◀/▶ to select “Yes”, and then press **ENTER**.
2 Press ▲/▼/◀/▶ to select the channel you want to move, and then press **ENTER**.
3 Press ▲/▼/◀/▶ to move it to the desired position, and then press **ENTER**.
4 Repeat steps 2 and 3 until all desired channels are sorted.

Erase programme

Channels can be erased individually.

1 Press ◀/▶ to select “Yes”, and then press **ENTER**.
2 Press ▲/▼/◀/▶ to select the channel you want to erase, and then press **ENTER**.
- A message window pops up.

3 Press ◀/▶ to select “Yes”, and then press **ENTER** to erase the selected channel. All the subsequent channels move up.
4 Repeat steps 2 and 3 until all desired channels are erased.

Useful viewing functions

TV Start-up time setting

View setting

Quick start

You can reduce the TV's start-up time after turning on the power with the remote control unit.

Go to "Menu" > "Setup" > "View setting" > "Quick start".

Item	
On	The TV quickly starts up from standby. 22 W or more of power consumption is required during standby.
Off	Power consumption is small during standby.

Individual setting – Password

View setting

Password

Allows you to use a password to protect certain settings from being accidentally changed.

Go to "Menu" > "Setup" > "View setting" > "Individual setting" > "Password".

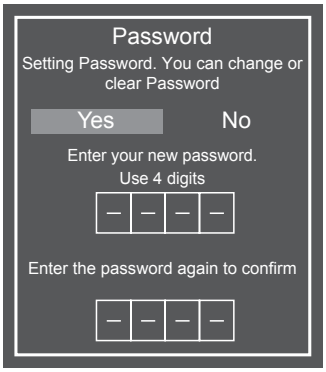
Setting a password

Register a four-digit password number to use the "Password" function.

1 If you already set the password, enter it here.

2 Press ◀/▶ to select "Yes", and then press **ENTER**.

3 Enter the four-digit number as a password using **0**–**9** numeric buttons.



4 Enter the same four-digit number as in step 3 to confirm.

5 Press **ENTER**.

NOTE

- To view a locked channel, you must enter the password (see page 36 for locking channels password). When you select a locked channel, a password prompt message pops up. Press **RETURN** to display the password input window.

Deleting the password

Allows you to reset your password.

1 Enter the password.

2 Press ◀/▶ to select "No", and then press **RETURN**.

3 Press ◀/▶ to select "Yes", and then press **ENTER**.



NOTE

- **As a precautionary measure, make a note of your password on page 65, cut it out and keep it in a safe place that children cannot reach.**
- This function is only available for TV input mode.
- To relock a channel which has been temporarily unlocked by inputting the correct password, turn power off and then on again.

View setting

Parental rating

This function allows DTV services to be restricted. It prevents children from watching violent or sexual scenes that may be harmful.

1 Go to "Menu" > "Setup" > "View setting" >"Individual setting" > "Parental rating".
- Repeat steps 1 to 5 in **Setting a password** to the left.

Selected item	Description
No block	Cancel the blocking.
age xx years	Select desired age to block. (Example) If age 14 is selected, programmes rated for ages of 15 or more are blocked.
General and above (G)	Content is not offensive to most viewers.
Parental guidance and above (PG)	Content is such that parents may not want their children to view the programme.
Mature and above (M)	Mature audience only. This programme is specifically designed to be viewed by adults and therefore may be unsuitable for children under 15.
Mature adult and above (MA)	Mature adult only. This programme is specifically designed to be viewed by adults and therefore may be unsuitable for children under 15.
Adult violence and above (AV)	Not for children under age 15. Strong elements of sex and/or violence.
Restricted and above (R)	Not for children under age 18. Strong elements of sex and/or violence.

Individual setting – Time

View setting

Time display

Go to “Menu” > “Setup” > “View setting” > “Individual setting” > “Time display”.

Time display

This function allows you to display the clock time in the lower-right corner of the screen.

Item	
On	Displays the clock time.
On (half-hourly)	Displays the clock time in 30-minute increments.
Off	Hides the clock time.

NOTE
- Time information is available when channel time information including the teletext information is obtained in the “TV” mode.

Time format

You can select the time format (either “24HR” or “AM/PM”) for the clock time.

NOTE
- The displayed time may differ depending on the programmes because of the programme information.

View setting

Time zone

This function enables you to select your local time zone.

Go to “Menu” > “Setup” > “View setting” >“Individual setting” > “Time zone”.

NOTE
- This function lets you select the right time zone in case the time displayed in the EPG does not match the local time of your area.
- When the country setting is set to “Australia”, this function is available. When the country setting is set to “Singapore” or “New Zealand”, this function is not available.

Individual setting – Language

View setting

Digital audio language

Set up to three preferred multi audio languages to display if the audio languages are available.

Go to “Menu” > “Setup” > “View setting” > “Individual setting” > “Digital audio language”.

Switching the multi audio languages

Each time you press **MPX** on the remote control unit, the audio language switches.

NOTE
- This function depends on audio language information from broadcasters.
- If audio for the selected language is not included in a received broadcast, audio will not be output for that language.

View setting

Subtitle

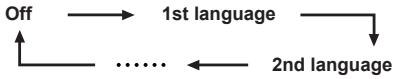
Set up to two preferred subtitle languages (including subtitles for the hearing impaired) to display if subtitles are available.

Go to “Menu” > “Setup” > “View setting” > “Individual setting” > “Subtitle”.

Selectable items
- 1st language
- 2nd language
- For hearing impaired

Switching subtitle languages

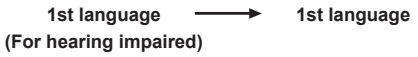
Each time you press on the remote control unit, the subtitle switches.



Set “For hearing impaired” to “Yes”

Subtitles for the hearing impaired have priority over each of the subtitle language settings (e.g., “1st language”, “2nd language”, etc.).

EXAMPLE



NOTE
- Subtitles will not be displayed when the programme does not contain subtitle information.
- Subtitles may not be displayed in 3D mode.

View setting

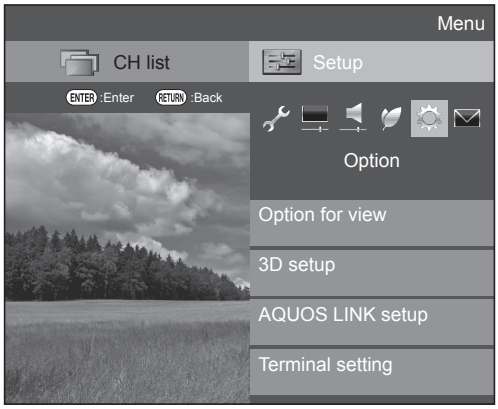
Language

You can select an OSD language. Refer to the **OSD language** column in the specification table for the selectable languages (Page 69).

Go to “Menu” > “Setup” > “View setting” > “Language”.

Optional features settings

Go to “Menu” > “Setup” > “Option”.



Selecting the picture size manually

Option

Wide mode

You can select the picture size. Selectable picture size varies with the type of signal received.

1 Go to “Menu” > “Setup” > “Option” > “Option for view” > “Wide mode”.
- You can also select an item by pressing **WIDE** on the remote control unit.
- The menu lists the “Wide mode” options selectable for the type of video signal currently received.

2 Press ▲/▼ to select the desired item.
- As you toggle the options, each is immediately reflected on the screen. There is no need to press **ENTER**.

Basically, if you set “WSS” to “On” in the “Option” menu, the optimum “Wide mode” is automatically chosen for every broadcast or programme played using a VCR or DVD player/recorder.

NOTE
- Even if you select your desired “Wide mode” manually, the TV may automatically switch to the optimum “Wide mode” depending on the signal received when “WSS” is set to “On”.

Item (for SD [Standard-Definition] signals)	
Normal	Keeps the original aspect ratio in a full screen display.
Zoom 14:9	For 14:9 letterbox pictures. A thin side bar appears on each side, and you may also see bars on the top and bottom with some programmes.
Panorama	In this mode, the picture is stretched toward each side of the screen. The picture may appear similar to “Full” depending on broadcast signals.
Full	For 16:9 squeeze pictures.
Cinema 16:9	For 16:9 letterbox pictures. Bars may appear on the top and bottom with some programmes.
Cinema 14:9	For 14:9 letterbox pictures. Bars may appear on the top and bottom with some programmes.

Item (for HD [High-Definition] signals)	
Full	Displays with an overscan image. Crops all sides of screen.
Underscan	Displays with an underscan image only when receiving a 720p signal. Displays with the High-Definition image adjusted optimally. Noise may appear on the edge of the screen with some programmes.
Dot by Dot	Displays an image with the same number of pixels on the screen when receiving 1080i/1080p signals only.

NOTE
- Some items do not appear depending on the type of received signal.
- You may not be able to change the wide mode while in 3D mode.
- Refer to page 56 for PC signals.

Selecting the WSS picture size automatically

Option

WSS

The “WSS” allows the TV to switch automatically among the different picture size.

Go to “Menu” > “Setup” > “Option” > “WSS”.

NOTE
- Use “Wide mode” if an image does not switch to the appropriate picture size. When the broadcast signal contains no “WSS” information, the function will not work even if enabled.
- This function is available for 3D images converted from 2D images or normal 2D images.

Option

4:3 mode

The “WSS” signal has 4:3 auto-switching that allows you to select between “Normal” and “Panorama”.

Go to “Menu” > “Setup” > “Option” > “4:3 mode”.

Item	
Normal	Normal range keeping 4:3 or 16:9 aspect ratio.
Panorama	Wide image without side bars.

WSS signal 4:3 screen

4:3 mode “Normal” **4:3 mode “Panorama”**



Setting audio input

Option

Audio select

When using the PC terminal or HDMI2 terminal, you must select which terminal uses the AUDIO IN jack for analogue audio input.

Go to “Menu” > “Setup” > “Option” > “Terminal setting” > “Audio select”.

When selecting “HDMI2” from the “INPUT” menu

Item	
HDMI (Digital)	When connecting devices (including a PC) with a HDMI cable to the HDMI2 terminal.
HDMI + Analog	When connecting devices (including a PC) with a DVI/HDMI cable to the HDMI2 terminal and inputting analogue audio signals from the AUDIO IN jack.

NOTE

- You must set this to “HDMI + Analog” when connecting devices (including a PC) with an HDMI-certified cable to the HDMI2 terminal. If “HDMI (Digital)” is set, there will be no sound output.

When selecting “PC” from the “INPUT” menu

Item	
Video	When connecting devices with AV cable to the PC terminal, display images without audio.
Video + Audio	When connecting a PC to the PC terminal, and inputting analogue audio signals from the AUDIO IN jack.

Skipping specified inputs

Option

Input skip

This setting allows you to skip the inputs on the input source selection operation.

Go to “Menu” > “Setup” > “Option” > “Terminal setting” > “Input skip”.

Option

Input label

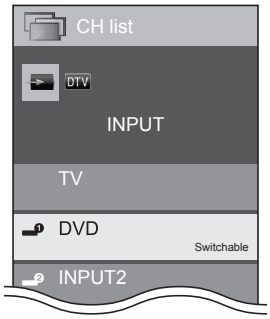
You can label each input source with a custom description.

1 Press **INPUT** to select the desired input source from the “INPUT” menu, and then press **ENTER**.

2 Go to “Menu” > “Setup” > “Option” > “Terminal setting” > “Input label”.

3 Select each character of the new name for the input source with using the software keyboard (page 14).

4 Repeat the above until the name is fully spelt out, and then press **MENU**.
- The label can be six characters or less.
- When you want to set an input source name of less than six characters, select “Cancel”.



NOTE
- You cannot change labels if the input source is “TV”, “USB media” or “Home network”.

Selecting the HDMI picture size automatically

Option

HDMI auto view

This function allows you to automatically change to the appropriate picture size when viewing an HDMI signal using the HDMI1, 2, 3 and 4 terminals.

1 Press **INPUT** to select the input source (“HDMI1”, “HDMI2”, “HDMI3” or “HDMI4”) connected to your HDMI device, and then press **ENTER**.

2 Go to “Menu” > “Setup” > “Option” > “Terminal setting” > “HDMI auto view”.

Item	
Enable/Disable	Set whether or not to use “Wide mode” based on signal recognition, including an HDMI signal.

NOTE
- Refer to your external equipment operation manual for the above settings.
- When connecting a DVI-HDMI conversion adaptor/cable to the HDMI terminal, the image may not come in clearly.

Option

Headphone/Audio out select

You can select which device is used for outputting audio.

Go to “Menu” > “Setup” > “Option” > “Terminal setting” > “Headphone/Audio out select”.

Item	
Headphone	Output audio through headphones.
Audio out	Output audio through an A/V receiver or surround audio controller.

Regarding the headphone jack
- Use headphones with a stereo mini plug (Ø 3.5 mm).
- Be sure to unplug headphones from the jack when they are not in use.
- The speakers do not output volume when headphones are plugged in.
- The “Audio” menu cannot be operated when headphones are plugged in.
- You can set the volume to different levels for each input source.

Volume display when headphones are plugged in



CAUTION
- This terminal is also used for headphones. Reduce the volume before using headphones. Overwhelming sound may damage your hearing.

NOTE
- If you select “Audio out” when a cable is inserted in the AUDIO IN terminal, the TV speakers are muted.
- When you select “Audio out”, you can adjust the TV sound volume with the **VOL** − / + buttons on the TV or the remote control unit.

Option

Colour system

You can change the colour system to one that is compatible with the image on the screen.

Go to “Menu” > “Setup” > “Option” > “Colour system”.

NOTE
- The factory preset value is “Auto”.
- If “Auto” is selected, the colour system for each channel is automatically set. If an image does not display clearly, select another colour system (e.g., “PAL”, “SECAM”).

Option

Channel selecting effect

This function shows a screen effect when choosing or changing channels.

Go to “Menu” > “Setup” > “Option” > “Screen effect” > “Channel selecting effect”.

Option

Programme title display

This function allows you to display programme information such as the title and airtime by tuning a channel.

Go to “Menu” > “Setup” > “Option” > “Screen effect” > “Programme title display”.

NOTE

- This function is available only when the DTV mode is selected.

Adjusting image position

Option

Position

For adjusting a picture’s horizontal and vertical position.

Go to “Menu” > “Setup” > “Option” > “Screen effect” > “Position”.

Item	
H-Pos.	Centres the image by moving it to the left or right.
V-Pos.	Centres the image by moving it up or down.

NOTE

- For resetting all adjustment items to the factory preset values, press ▲/▼ to select “Reset”, and then press **ENTER**.
- Adjustments are stored separately for each input source.
- Depending on the input signal type, “Wide mode” setting or “Video mode” for the USB media mode, a position setting may not be available.
- Images may not be displayed properly depending on the settings and/or signals.
- This function is available for 3D images converted from 2D images or normal 2D images.

Additional features



Option

Illumination

This function makes the LED on the front of TV illuminated in several ways.

Go to “Menu” > “Setup” > “Option” > “Illumination”.

Item	
Off*	The LED is not illuminated.
Standby*	The LED is illuminated while the TV is in standby mode.
Watch	The LED is illuminated while you watch TV.
Always	The LED is illuminated all the time.

* After you select “Off” or “Standby”, press ◀/▶ to select “Yes” and then press **ENTER**.

NOTE

- The factory default for this item is “Watch”. Set to “Off” if you do not want the LED to illuminate.
- The LED is illuminated in white for 2D mode.
- The LED is illuminated in blue for 3D mode.



Option

Game play time

This function allows you to display the elapsed time on the screen when “AV mode” is set to “GAME”.

Go to “Menu” > “Setup” > “Option” > “Game play time”.

Item	
On	Under connecting a game console to the TV, the elapsed time is displayed in 30-minute increments after you start playing a game.
Off	Hides the time.

NOTE

- This function is displayed in the external input mode.
- This function is reset after performing the following operations:
  1. When toggling the input.
  2. When changing “AV mode”.



Option

Key lock

This function allows you to lock the buttons on the TV or remote control unit in order to prohibit children from changing the channel or volume.

Go to “Menu” > “Setup” > “Option” > “Key lock”.

Item	
Off	Unlocks the buttons.
RC Control Lock	Locks all buttons on the remote control unit.
Button Control Lock	Locks the buttons on the TV except the power switch.

NOTE

- You cannot set both “RC Control Lock” and “Button Control Lock” at the same time.

Cancelling the lock

Press **MENU** on the TV and set to “Off” to cancel the “RC Control Lock”. Press **MENU** on the remote control unit and set to “Off” to cancel the “Button Control Lock”.

NOTE

- See page 16 for the functions of the TV control panel buttons.
- **To cancel “Button Control Lock”, use the remote control.**

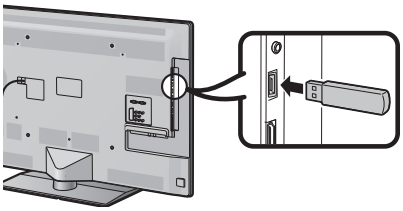
Using a USB device

The TV provides you some functions using a USB device. You can select which function to use after inserting a USB device in the USB port, and the TV starts the settings for each function.

USB usage
- Storage device for time shift
- USB media to enjoy photos, music and videos

Connecting a USB device

Connect a USB device to the TV as shown below.



NOTE
- Some USB devices may not work properly for this function.
- Directly connect the USB storage device for time shift to the USB port.
- Do not connect and disconnect a USB device from the TV repeatedly.

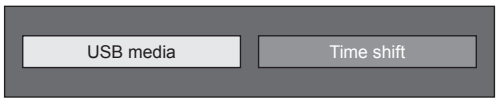
Selecting USB usage

You need to select which function a USB device is used for when the USB device is inserted in the USB port.

1 Connect a USB device to one of the USB ports.
- The screen prompt pops up.

NOTE
- If a USB storage device is inserted during time shift operation, a screen prompt will not pop up.

2 Select the function you want to use.
Press ◀/▶, and then press **ENTER**.



NOTE
- When you want to configure a software update, you need to press **EXIT** to close the window.

For time shift

You need to complete the following procedure to use the USB storage device for time shift. After selecting “Time shift”, the TV starts initialising the USB storage device. Follow the screen prompt to complete the setting.

1 Press ◀/▶ to select “ Yes”, and then press **ENTER**.
- Reconfirm use of the USB storage device for time shift.

NOTE
- When you have inserted two or more USB storage devices in the ports, an error message appears. Insert only one USB storage device for time shift.
- You can also set the USB storage device to be used for time shift in the “Device registration” menu (Page 47).
- At least 1 GB is required for a USB storage device for time shift.
- A USB HDD cannot be used as a USB storage device for time shift.

2 Press ◀/▶ to select “ Yes”, and then press **ENTER**.
- The TV starts initializing the USB storage device.
- Delete the data in the USB storage device.

NOTE
- Do not disconnect the USB storage device when the TV is recognising the memory for time shift.

3 Select “OK”.
Press **ENTER**.

NOTE
- If an error message is displayed on the screen, follow the screen prompts and remove the USB storage device.

→ Go to **Time shift** on page 45.

For USB media

After selecting “USB media”, the TV switches to the USB media.

→ Go to **USB media/Home network** on page 48.

NOTE
- Depending on the USB device, the TV may not be able to recognise the contained data.
- Use only alphanumeric characters for naming files.
- File names over 80 characters (may vary depending on the character set) may not be displayed.
- Do not disconnect a USB device or memory card from the TV while transferring files, using the slide show function, when a screen is switching to another or before you exit “USB media” from the “INPUT” menu.

Disconnecting the USB device

When you disconnect the USB device, be sure to the following steps.

For time shift

Go to “Menu” > “Setup” > “Option” > “Time shift setting” > “Device removal”.

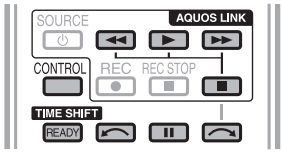
NOTE
- This menu item cannot be selected when a USB storage device for time shift is not registered.
- The USB storage device registration for time shift is cancelled in the following cases:
  – When the USB storage device is removed.
  – When another USB storage device is registered for time shift; only one USB device can be registered for time shift.

For USB media

Press **B** on the remote control unit while the “Photo”, “Music”, “Video” folder or a sub-folder is selected.

Time shift

This function enables you to pause the digital TV programme you are watching and start watching it again from the paused scene.



1 Press **READY**.
- The TV starts temporary recording of the real time broadcast in the background.

2 Press ▶.
- The TV shows the programme from the scene that the TV started recording and the recording carries on.
- When the TV again playbacks after once pressing ■ to stop the programme, the TV shows the programme from the stopped scene.

Buttons for time shift operation

Buttons	Description
READY	Start recording the programme you are watching. • You cannot playback the recorded programme until approximately three seconds after pressing **READY** to start recording.
▶	Playback the recorded programme.
■	Stop the programme in playback (time shift recording continues) and go back to the real time broadcast (live).
❚❚	Pause the programme in playback (time shift recording continues). • This function is released in 15 minutes.
◀◀	Reverse (each time you press this button, the reverse speed changes in three levels).
▶▶	Fast forward (each time you press this button, the fast forward speed changes in three levels).
↶	Playback after jumping backwards by 10 seconds.
↷	Playback after jumping forward by 30 seconds.
CONTROL*1	Activate the control panel.
↺*2	Playback will resume after jumping backwards by the time interval you set in “Jump time setting” (Page 47).
↻*2	Playback will resume after jumping forward by the time interval you set in “Jump time setting” (Page 47).

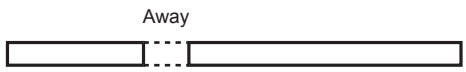
*1 The **CONTROL** button is only available on the remote control unit.
*2 The ↺ and ↻ buttons are only available on the control panel.

NOTE
- Instead of pressing buttons on the remote control unit, most of the operations shown to the left are also available on the screen with the control panel. You can call up this control panel by pressing **CONTROL** on the remote control unit or select “Control (Time shift)” from “Option” > “Option for view”.
- The control panel for time shift displays only during time shift operation.
- The “Audio description setting” menu does not work during time shift playback.
- When the amount of memory used for time shift reaches “Full” and the blue point is around the left edge of the bar (see ❷ and ❸ in the **Counter** section on page 46), you cannot operate some functions (❚❚ (Pause), ◀◀ (Reverse), ↶ (Jumping backwards by 10 seconds), ↺ (Jumping backwards by the time interval you set in “Jump time setting” (Page 47)).
- Time shift recording stops if no operation detected for three hours.
- Time shift does not work for ATV, external inputs, data broadcasts and radio broadcasts.
- To release time shift, press **READY**, change the DTV channel, change “INPUT” or turn off the power of the TV.
- Time shift will be released if no operations are performed for three hours.
- Some functions do not work during time shift.
- Time shift is not actually a recording function, so the recorded data is reset when you exit time shift.
- Time shift does not work automatically, it starts only when you press **READY**.
- The password is required when you use the buttons such as ◀◀, ▶▶, ↶, ↷, ↺, ↻ if you set the password and any options for “Parental rating” except “No block” are selected.
- Time shift does not work for any copy protected programmes.
- For certain signals, resolution may be reduced during time shift playback.
- Do not disconnect the USB storage device used for time shift during time shift operation.

Examples of time shift usage

When you move away from the TV for a while (press READY when you move away from the TV)

Without time shift



You miss the scene while you are away.

With time shift



You can watch the missed scene when you come back.

When you want to watch the same scene again (you must press READY in advance for time shift to function)

Without time shift



You cannot watch the same scene again.

With time shift

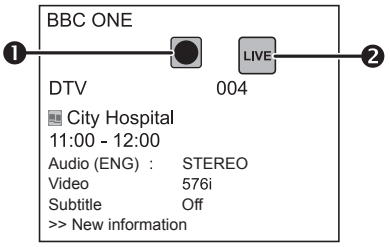


You can watch the same scene again.

Display information regarding time shift

Channel display

Channel information displays by pressing **DISPLAY** on the remote control unit.

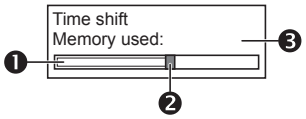


❶ The time shift ready icon shows up when **READY** is pressed and the TV is recording the programme.

❷ The status icon shows up depending on what is shown on the screen.

Counter

The counter displays when you set “On” in “Display the Time shift memory” (Go to “Setup” > “Option” > “Time shift setting”).



❶ The grey bar shows how much memory is in use.

❷ This blue point shows how much time has progressed.

❸ “Full” shows up when the grey bar reaches the right edge. The TV starts overwriting the previously recorded data.

NOTE

- You can also call up the information above by pressing **CONTROL** on the remote control unit or select “Control (Time shift)” from “Option” > “Option for view”.

Option

Auto input selection

You can choose whether or not to switch the input source automatically when receiving an AQUOS LINK compatible signal on the TV during time shift operations.

Go to “Menu” > “Setup” > “Option” > “Time shift setting” > “Auto input selection”.

Item	
Enable	Release time shift when receiving an AQUOS LINK compatible signal. Switch input source automatically.
Disable	Time shift continues to work. The TV does not switch input source automatically even when receiving an AQUOS LINK compatible signal.

Option

Jump time setting

You can set the time interval for playback to resume after jumping backwards/forward.

Go to “Menu” > “Setup” > “Option” >”Time shift setting” > “Jump time setting”.

- A time interval from 1 to 99 minutes can be selected.

NOTE

- You can use the time interval you set using the ↶ or ↷ buttons on the control panel.

Option

Device registration

You need to perform this function to register the USB storage device for the time shift.

Go to “Menu” > “Setup” > “Option” >“Time shift setting” > “Device registration”.

- Refer to **For time shift** (Page 44) for registering a USB storage device.

NOTE

- Only one USB storage device can be registered for time shift. Remove all USB storage devices except the one used for time shift.
- At least 1 GB is required for a USB storage device for time shift.
- A USB HDD cannot be used as a USB storage device for time shift.
- Some USB storage devices, such as ones which have multiple drives, etc., cannot be used for time shift.

Option

Device check

You can manually check the condition of a USB storage device to be used for time shifting.

Go to “Menu” > “Setup” > “Option” > “Time shift setting” > “Device check” > select “Yes”.

NOTE

- This menu item cannot be selected when a USB storage device for time shift is not registered.

USB media/Home network

USB media/Home network

In both modes, you can enjoy viewing photos, listening to music and watching videos from external USB devices (USB Memory, USB card reader (Mass Storage Class), USB HDD) or Home network server.

NOTE

- To connect a Home network server, refer to Network setup (Pages 53 and 54).
- Some USB devices may not work properly for this function.
- The corresponding file format is different between “USB media” and “Home network”.
- “Wide mode” is fixed during “Photo mode”. During “Video mode”, you can select “Auto” or “Original”.
- Depending on the Home network server, the TV may not be able to recognise the contained data.
- Use only alphanumeric characters for naming files.
- Do not disconnect a Home network server from the TV while transferring files, using the slide show function, when a screen is switching to another or before you exit “Home network” from the “INPUT” menu.
- Do not connect and disconnect a Home network server from the TV repeatedly.

Selecting the mode

Common operation

Select “USB media” or “Home network” from the “INPUT” menu to enter this mode.

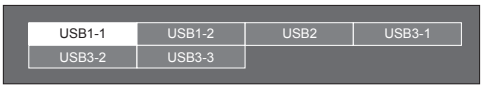
Another way to select the mode

- **USB media**
  Select the USB media mode option on the screen when a USB device is connected to the TV.

Selecting modes and drives/servers

1 Press **B**.

USB media mode (Example)



① Press ▲/▼ to select “Select USB drive”, and then press **ENTER**.
- The available selections are “Select USB drive” and “Folder display setting”.

② Press ▲/▼/◀/▶ to select the USB drive where you want to find your files, and then press **ENTER**.
- You can select from “All” or “Folder” for the type of folder directory in the “Folder display setting”.

Home network mode (Example)



Press ▲/▼ to select the server where you want to find your files, and then **ENTER**.
- Press **Y** to search for servers.

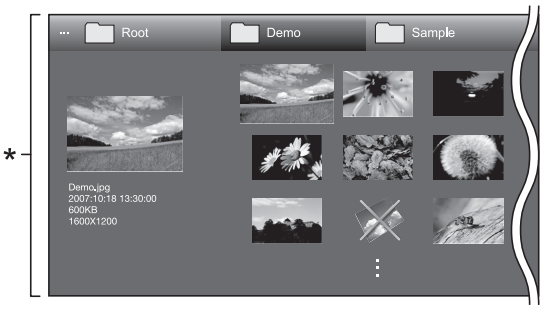
2 Press ◀/▶ to select “Photo mode”, “Music mode” or “Video mode”, and then press **ENTER**.

NOTE

- **The explanations for the buttons that can be used in each mode are the explanations when using USB media mode.**
  Some operations may differ in Home network mode. Follow the on-screen instructions during operations.
- You do not need to select the drive/server in step 1 when there is only one drive in the connected USB device or there is only one Home network server connected to the TV.
- 16 is the maximum number of drives that can be displayed in USB media mode.
- 10 is the maximum number of servers that can be displayed in Home network mode.
- You cannot enter these modes when there is no server connected to the TV in Home network mode.

Photo mode

Viewing thumbnails



* This screen image is for the USB media mode. It may be slightly different in the Home network mode.

Buttons for thumbnail operations (When using USB media mode)

Buttons	Description
ENTER	When selecting a folder icon: Enter this directory. When selecting a photo thumbnail: Enlarge the photo.
▲/▼/◄/► (Cursor)	Select a desired item.
RETURN	Return to the previous operation.
R button	Select/deselect items (✔ mark appears on the selected items).
G button	All*: Select BGM for the slide show. Folder*: Move to the parent folder.
Y button	Start the slide show.
B button	Display “USB media menu”. • 3D display • Select slide show interval • Select slide show BGM • Set all slide show image • Reset all slide show image • USB device removal

* The mode selected in “Folder display setting”

NOTE

- When there are invalid photo files, the ✕ mark will be displayed for the file.
- The 3D mode icon appears on the thumbnails of 3D images. If you do not switch to 3D mode for the 3D images, they will be displayed in 2D.
- You can see the file name, shooting date, file size and pixel size of the selected photo on the left of the screen (shooting date is only available in the EXIF file format).

3D mode

You can view photos in 3D mode.

1 Press **B** to display the “USB media menu” screen.

2 Press ▲/▼ to select “3D display”, and then press **ENTER**.

• See pages 60 to 64 for details on the 3D function.

NOTE

- In 3D mode, you cannot rotate the photos.
- You can select “3D display” from “USB media menu” only when the thumbnails screen for the photo mode in USB media mode is displayed on the screen.

Viewing enlarged photos

Buttons for enlarged photo display operation (When using USB media mode)

Buttons	Description
◄/► (Cursor)	Go to the previous/next photo in the same directory.
RETURN	Return to the thumbnail selection screen.
3D	Switch between 2D and 3D modes.
R button	Rotate the photo by 90 degrees to the left.
G button	Rotate the photo by 90 degrees to the right.
B button	Display “USB media menu”. • USB device removal
DISPLAY	Reveal the guide display.

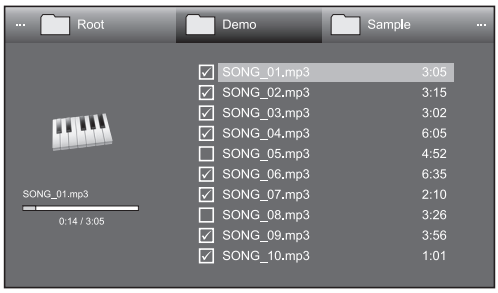
NOTE

- Rotating photos only applies to the temporarily selected item and this setting is not saved.

Slide show

Selecting the BGM

Setup the slide show BGM from “Select slide show BGM” by pressing **B** when selecting photo thumbnails. This function is available only for the USB media mode.



Buttons for slide show BGM select operation

Buttons	Description
ENTER	When selecting a music file: Play music.
▲/▼/◀/▶ (Cursor)	Select a desired item.
RETURN	When music is stopped: Return to the previous operation. When music is being played: Stop music.
R button	Select/deselect items (✔ mark appears on the selected items).
G button	All*: Stop music. Folder*: Move to the parent folder.
Y button	Play/pause music.
B button	Display “USB media menu”. • Set all BGM • Reset all BGM • USB device removal

* The mode selected in “Folder display setting”

NOTE

- Slide show BGM will be reset in the cases below.
  - Select “Reset all BGM” by pressing **B** during selecting music files.
  - Go back to the top menu.
  - Change the “INPUT”.
- When there are invalid music files, the ✕ mark will be displayed for the file.
- The displayed play time may differ slightly from the actual play time depending on the files.

Slide show

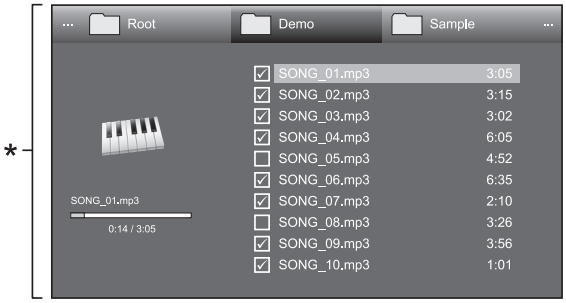
Buttons for slide show operation (When using USB media mode)

Buttons	Description
RETURN	Return to the previous operation.
3D	Switch between 2D and 3D modes.
DISPLAY	Reveal/hide the guide display.
B button	Display the “USB media menu”. • Select slide show interval • USB device removal

NOTE

- The selected BGMs are played repeatedly.
- The slide show continues until you press **RETURN**.
- Depending on the photo, the slide show interval per photo may be longer than the interval selected in the settings.

Music mode



* This screen image is for the USB media mode. It may be slightly different in the Home network mode.

Buttons for music mode (When using USB media mode)

Buttons	Description
ENTER	When selecting a music file: Play music.
▲/▼/◀/▶ (Cursor)	Select a desired item.
RETURN	When music is stopped: Return to the previous operation. When music is being played: Stop music.
R button	Select/deselect items (✔ mark appears on the selected items).
G button	All*: Stop music. Folder*: Move to the parent folder.
Y button	Play/pause music.
B button	Display “USB media menu”. • Set all auto play • Reset all auto play • USB device removal

* The mode selected in “Folder display setting”

NOTE

- When there are invalid music files, the ✕ mark will be displayed for the file.
- The displayed play time may differ slightly from the actual play time depending on the files.

Video mode

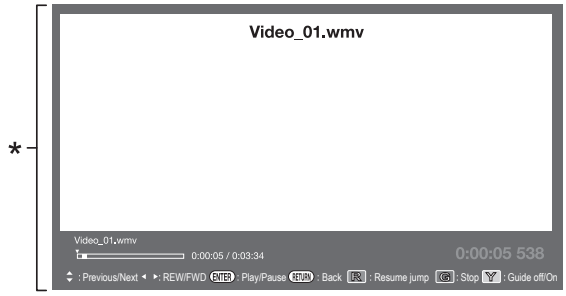


Buttons for file selecting operations (When using USB media mode)

Buttons	Description
ENTER	When selecting a folder icon: Enter this directory. When selecting a video file: Play the video.
▲/▼/◀/▶ (Cursor)	Select a desired item.
RETURN	Return to the previous operation.
R button	Select/deselect items (✔ mark appears on the selected items).
G button	All*: - Folder*: Move to the parent folder.
B button	Display the “USB media menu”. • Set all auto play • Reset all auto play • USB device removal

* The mode selected in “Folder display setting”

Viewing a video



* This screen image is for the USB media mode. It may be slightly different in the Home network mode.

Buttons for playing mode (When using USB media mode)

Buttons	Description
ENTER	When video is being played: Pause the video. When video is paused: Play the video.
▲ (Cursor)	Go to the beginning of a file by pressing ▲ once and the previous file by pressing ▲ twice.
▼ (Cursor)	Go to the next file.
◀/▶ (Cursor)	Reverse/fast forward a video.

Buttons	Description
RETURN	Go back to the file selection screen.
3D	Switch between 2D and 3D modes.
R button	Start playback from the previously stopped scene.*1
G button	Stop a video.
Y button	Display the USB control panel.
B button	Display “USB media menu”. • Title (edition) • Chapter • Show video information • USB device removal
0–9	Jump to scenes at 10% increments (0%–90%). • Limited to files without chapters.
DISPLAY	Reveal/hide the guide display.

*1 This function is available only for the USB media mode.

Control panel

Press **CONTROL** and the control panel displays and operations for video playback will be available.*



* This screen image is for the USB media mode. It may be slightly different in the Home network mode.

⏮	Video without chapters: Press one time to return to the previous playback point.* Press two times to return to the previous file. Video with chapters: Press one time to return to the previous chapter. Press two times to return to the previous file.
⏭	Video without chapters: Press one time to advance to the next playback point.* Press two times to display the next file. Video with chapters: Press one time to return to the previous chapter. Press two times to return to the previous file.

NOTE

* During playback of a file without chapters, playback points are set automatically. Playback points are set at intervals of a one-tenth of playback time.

- The key guide is shown when playback is resumed.
- You can also display the control panel by selecting “Control (USB media)” or “Control (Home network)” from “Option” > “Option for view”.
- Reverse/fast forward continues from one file to another during continuous playback in the USB media mode. Jump forward/back may not be available depending on the files in the Home network mode.

Selecting the picture size for video mode

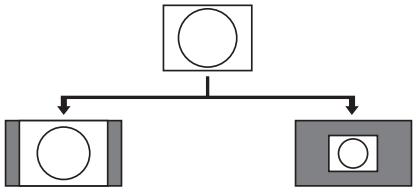
You can select the picture size in “Video mode”.

1 Select “Video mode”.
- Refer to **Selecting modes and drives/servers** on page 48.

2 Press **WIDE**.
- The “Wide mode” menu displays.

3 Press **WIDE** or ▲/▼ to select the desired item.
- As you toggle the options, each is immediately reflected on the screen. There is no need to press **ENTER**.

EXAMPLE



Item	
Auto	Keeps the original aspect ratio in a enlarged screen display.
Original	Keeps the original aspect ratio and size.

View setting

DivX® setup

This is the function to confirm your registration code. You need to register the code at www.divx.com.

Go to “Menu” > “Setup” > “View setting” > “DivX® setup”.

DivX® VOD registration

You can find your registration code on this menu. You need to register the TV at www.divx.com before playing the DivX content.

DivX® VOD deregistration

You can find your deregistration code on this menu. You need to deregister the TV at www.divx.com to release the registration.

USB device compatibility

USB device	USB memory, USB card reader (Mass Storage class), USB HDD
File system	FAT/FAT32/NTFS
Photo file format	JPEG (.jpg) (DCF2.0 compliant), MP (.mpo) (CIPA DC-007)
Music file format	MP3 (.mp3) Bitrate: 32 k, 40 k, 48 k, 56 k, 64 k, 80 k, 96 k, 112 k, 128 k, 160 k, 192 k, 224 k, 256 k, 320 kbps Sampling frequency: 32 k, 44.1 k, 48 kHz

Video file format			
File extension	**Container**	**Video**	**Audio**
.avi	AVI	DivX 3.11/4.x/5.1/6.0 XviD H.264 MPEG4 Motion Jpeg	MP3 Dolby Digital LPCM ADPCM
.mkv	MKV	DivX 3.11/4.x/5.1/6.0 XviD H.264 MPEG4	MP3 Dolby Digital LPCM ADPCM
.asf .wmv	ASF	DivX 3.11/4.x/5.1/6.0 XviD MPEG4 VC-1 Windows Media Video V9	MP3 Dolby Digital LPCM WMA
.mp4 .mov	MP4	H.264 MPEG4 Motion Jpeg	MP3 AAC
.mpg .mpeg	PS	MPEG2 MPEG1	Dolby Digital MPEG LPCM

NOTE
- Progressive format jpeg files are not supported.
- Files in USB 1.1 devices may not be played properly.
- Operation using USB hubs is not guaranteed.
- Some video file formats may not be played depending on the file.
- Files may not be playable depending on the bitrate.
- Some USB devices may not work properly depending on the file system.

Home network server compatibility

Photo file format	JPEG
Music file format	LPCM, MP3
Video file format	MPEG2-PS, MPEG2-TS, WMV, ASF, MP4, MOV, AVI

NOTE
- Progressive format jpeg files are not supported.
- Some video file formats may not be played depending on the file and server.

Network setup

Connecting to the network

You can connect the TV to your Home network server through a router or access point. The TV connection to the router can either be wired or wireless.

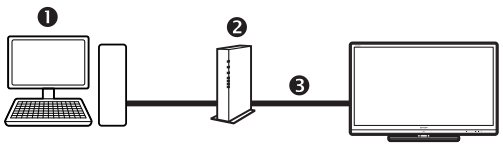
NOTE

- If you choose a wired connection to the router, you need an ETHERNET cable (commercially available).
- An Ethernet and wireless connection cannot be used at the same time. Use only one of the connection types.
- A wireless LAN connection and performance cannot be guaranteed for all residential environments. In the following cases, the wireless LAN signal may be poor or drop, or the connection speed may become slower.
  - When used in buildings made with concrete, reinforced steel, or metal
  - When placed near objects that obstruct the signal
  - When used with other wireless devices that emit the same frequency
  - When used in the vicinity of microwave ovens and other devices that emit a magnetic field, electrostatic charge, or electromagnetic interference
- A stable connection speed is required to play back streaming content. Use an Ethernet connection if the wireless LAN speed is unstable.

Wired installation

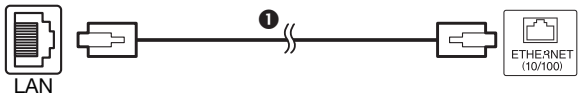
Use an ETHERNET cable to connect the ETHERNET terminal on the TV to your broadcast router as shown below. This is recommended when enjoying services which require stable connection speeds, such as streaming media.

Wired connection overview



❶ PC (home network server)
❷ Router (commercially available)
❸ ETHERNET cable (commercially available)

How to connect



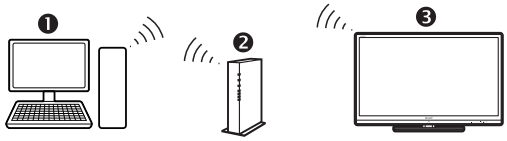
❶ ETHERNET cable (commercially available)

1. Switch on the router (commercially available). Refer to the router's operation manual for switching on.
2. Connect the ETHERNET terminal on the TV to the router (commercially available) with an ETHERNET cable (commercially available).
3. Go to "Menu" > "Setup" > "View setting" > "Network setup" > "Connection type".
4. Press ◀/▶ to select "Wired", and then press **ENTER**.
5. Select "OK" to confirm.

Wireless installation

Use the wireless LAN USB adapter (optional accessory).

Wireless connection overview

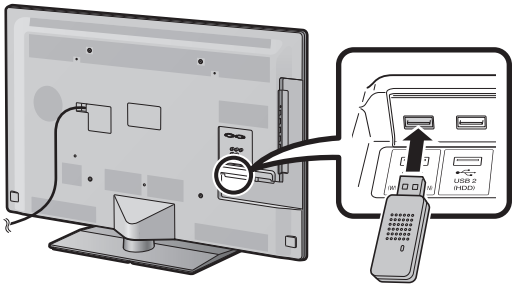


❶ PC (home network server)
❷ Wireless LAN router/access point
❸ Wireless LAN USB adapter (optional accessory)

NOTE

- When using the SHARP wireless LAN USB adapter (optional accessory), try to provide as much free space around the device for best performance.
- Make sure the firewalls in your network allows access to the TV wireless connection.
- Operations cannot be guaranteed when used with access points that do not have Wi-Fi® certification.

How to connect



1 Switch on your router before starting the network installation.

2 Connect the wireless LAN USB adapter (optional accessory) to the USB 3 (WIRELESS LAN) port on the rear of the TV.

3 Go to “Menu” > “Setup” > “View setting” > “Network setup” > “Connection type”.

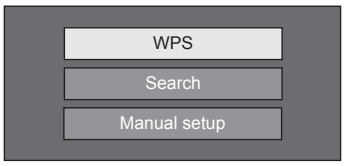
4 Press ◀/▶ to select “Wireless”, and then press **ENTER**.

5 Select “OK” to confirm.

6 Press ▲/▼ to select “Wireless setup” in the “Network setup” menu.

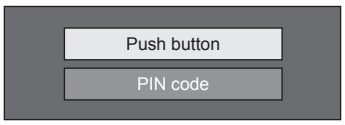
7 Press ◀/▶ to select “Change”, and then press **ENTER**.

8 Press ▲/▼ to select “WPS”, and then press **ENTER**.



- If your router/access point does not support WPS (= Wi-Fi Protected Setup), select “Search” and follow the on-screen instructions and the operation manual of the router/access point.
- To establish the connection manually, select “Manual setup” and follow the on-screen instructions and the operation manual of the router/access point.

9 Press ▲/▼ to select “Push button”, and then press **ENTER**.



- To establish the connection manually, select “PIN code”. Follow the on-screen instructions and the operation manual of the router/access point.

10 Select “Next” to proceed.

11 Press the WPS button on the router/access point. When you press the WPS button, a progress bar will appear on the display. Wait until the connection is established.

12 Select “OK” when the connection details are displayed.

- If you have failed to connect to the internet in the above operation, an error message will appear. In this case, press **INPUT** to return to the normal TV screen and check the relevant settings.

NOTE

- There is no need to enter the security key for subsequent connections to the wireless network.
- If your access point is set to a stealth mode (that prevents detection by other devices), you may not be able to establish a connection. In this case, disable the stealth mode on the access point.
- If you want to change the IP settings manually, go to “Menu” > “Setup” > “View setting” > “Network setup” > “IP setup” and follow the on-screen instructions and the operation manual of the router.
- See page 55 to check the wireless LAN USB adapter specifications.

Specifications (Wireless LAN USB adapter)

Product name			802.11n Dual Band WLAN adapter
Standard			IEEE 802.11a/b/g/n
Host interface			USB
Frequency band			2412−2484 MHz 5150−5850 MHz
Security			Static WEP (64/128 bit, key index 1 only) WPA-PSK (TKIP) WPA2-PSK (AES)
Modulation			DBPSK@1 Mbps DQPSK@2 Mbps CCK@5.5/11 Mbps BPSK@6/9 Mbps QPSK@12/18 Mbps 16-QAM@24 Mbps 64-QAM@48/54 Mbps and above, Rx up to 300 Mbps
Transmit power and sensitivity	Tx output power: (Typical)	2.4 GHz	11b 17 +/− 1.5 dBm 11g 14 +/− 1.5 dBm 11n 13 +/− 1.5 dBm
		5 GHz (5150−5250 MHz, 5250−5350 MHz)	11a 14 +/− 1.5 dBm 11n 13 +/− 1.5 dBm
		5 GHz (5470−5725 MHz, 5725−5850 MHz)	11a 13 +/− 1.5 dBm 11n 13 +/− 1.5 dBm
	Rx sensitivity: (Typical)		−84 dBm@11 Mbps −72 dBm@54 Mbps −64 dBm@64-QAM, 20 MHz channel spacing −61 dBm@64-QAM, 40 MHz channel spacing
Current Consumption (5V DC)			Tx: 2.2 W (Typical) Rx: 1.4 W (Typical)
Weight			13 g
Dimensions			20.0 (W) ×73.3 (D) × 8.0 (H) mm
Operating temperature			0 °C to + 40 °C

NOTE

- The optional wireless LAN USB adapter has received the following certifications.
  − Wi-Fi CERTIFIED™ (certification program from the Wi-Fi Alliance®)
  − Wi-Fi Protected Setup™ (certification program from the Wi-Fi Alliance®)
- When there is significant interference in the 2.4−GHz frequency (such as from other wireless LAN devices, Bluetooth® devices, 2.4−GHz cordless telephones, and microwave ovens), it is recommended that you use a wireless LAN access point that supports IEEE802.11a/n (5 GHz) and set the access point to transmit at 5 GHz. For setup details, see the operation manual of your access point.
- Before transferring to a third party or disposal, be sure to initialize the wireless LAN settings.
- Wireless LAN USB adapter is Peripheral Device for TV and supports WEP64, WEP128, TKIP and AES encryptions.

Optional accessories (Wireless LAN USB adapter)

The optional wireless LAN USB adapters vary by model available for purchase depending on the sales area. See the following table.

KI-OUA004WJN1	Indonesia, Malaysia, Philippines, Singapore, Thailand, Vietnam, Australia, New Zealand, India, Taiwan, UAE, Saudi Arabia
KI-OUA004WJN2	Morocco, Egypt, Kenya, South Africa, Bahrain, Kuwait, Oman, Qatar, Jordan, Lebanon, Ghana, Cambodia, Bangladesh, Brunei, Papua New Guinea, Mauritius, Maldives, Kazakhstan, Georgia, Angola, Myanmar, Sri Lanka, Laos
KI-OUA004WJN3	Algeria, Senegal, Niger, Benin, Burkina Faso, Mali, Mozambique, Madagascar, Zambia, Nepal, Tanzania, Fiji Islands
KI-OUA004WJN4	Nigeria

Connecting a PC

Connecting a PC

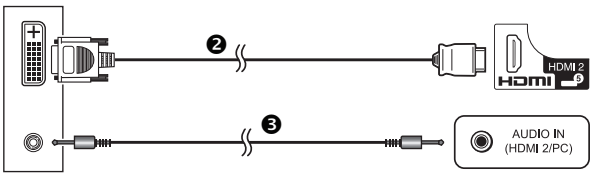
HDMI connection

PC **HDMI 1, 2, 3 or 4 terminals**



❶ HDMI-certified cable

PC **HDMI 2 terminal***

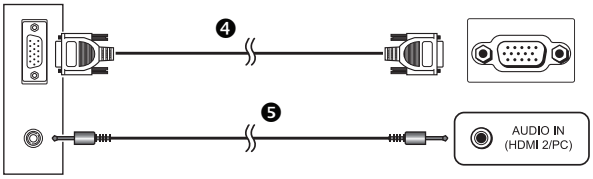


❷ DVI/HDMI cable ❸ ø 3.5 mm stereo minijack cable

* When using the HDMI2 terminal, you must select the proper item in the "Audio select" menu depending on the type of HDMI cable connected (refer to page 40 for details).

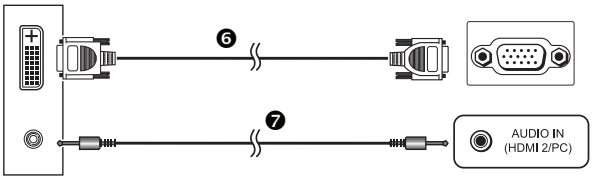
Analogue connection

PC **PC terminal***



❹ RGB cable ❺ ø 3.5 mm stereo minijack cable

PC **PC terminal***



❻ DVI/RGB conversion cable ❼ ø 3.5 mm stereo minijack cable

* When using the PC terminal, you must select "Video + Audio" in the "Audio select" menu (refer to page 40 for details).

NOTE

- The PC input terminals are DDC 2B-compatible.
- Refer to page 57 for a list of PC signals compatible with the TV.

Displaying a PC image on the screen

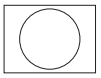
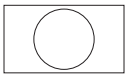
Selecting the picture size

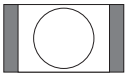
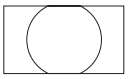
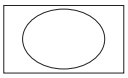
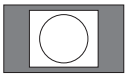
You can select the picture size.

1 Press **WIDE**.
- The "Wide mode" menu displays.

2 Press **WIDE** or ▲/▼ to select the desired item.

EXAMPLE

Input signal	 1024×768	 1360×768

Normal		Keeps the original aspect ratio in a full screen display.
Cinema		For viewing wide screen programmes. The top and bottom of the image is slightly cropped (only 1024×768 signals).
Full		An image fully fills the screen.
Dot by Dot		Detects the resolution of the signal and displays an image with the same number of pixels on the screen.

NOTE

- You can also select an item from "Setup" > "Option" > "Option for view" > "Wide mode".
- Connect the PC before making adjustments.
- Selectable picture size may vary with input signal type.
- You may not be able to change the wide mode while in 3D mode.
- Refer to page 39 for AV signals.
  HDMI: 480i/480p/576i/576p/720p/1080i/1080p
  ANALOGUE RGB: 576p/720p (50 Hz)/1080i
- The PC terminal is not compatible with 480i/576i/1080p signals.

Adjusting the PC image automatically

Option

Auto sync.

This function enables the screen to be automatically adjusted to its best possible condition when the analogue terminals of the TV and PC are connected with a commercially available DVI/RGB conversion cable, etc.

1 Press **INPUT** to select “PC” from the “INPUT” menu, and then press **ENTER**.

2 Go to “Menu” > “Setup” > “Option” > “Terminal setting” > “PC signal setting” > “Auto sync.”.

NOTE

- When “Auto sync.” is successful, “Auto Sync completed successfully” displays. If not, “Auto sync.” failed.
- Auto Sync. is likely to succeed when an input PC image has wide vertical stripes (e.g. pattern with high contrast stripes, or cross-hatched). It may fail when an input PC image is solid (low contrast).
- “Auto sync.” may fail even if “Auto Sync completed successfully” displays.
- “Auto sync.” may fail if the PC image has low resolution, has unclear (black) edges, or is moved while executing “Auto sync.”.
- Be sure to connect the PC to the TV and switch it on before starting “Auto sync.”.
- “Auto sync.” can be executed only when inputting analogue signals through the PC terminal.
- This function is available for 3D images converted from 2D images or normal 2D images.

Adjusting the PC image manually

Option

Fine sync.

Ordinarily you can easily adjust the picture as necessary to change image position using “Auto sync.”. In some cases, however, manual adjustment is needed to optimise the image.

1 Press **INPUT** to select “PC” from the “INPUT” menu, and then press **ENTER**.

2 Go to “Menu” > “Setup” > “Option” > “Terminal setting” > “PC signal setting” > “Fine sync.”.

3 Press ▲/▼ to select the specific adjustment item.

4 Press ◀/▶ to adjust the item to the desired position.

Item	
H-Pos.	Centres the image by moving it to the left or right.
V-Pos.	Centres the image by moving it up or down.
Clock	Adjusts when the image flickers with vertical stripes.
Phase	Adjusts when characters have low contrast or when the image flickers.

NOTE

- For resetting all adjustment items to the factory preset values, press ▲/▼ to select “Reset”, and then press **ENTER**.
- “Clock” and “Phase” in the “Fine sync.” menu can be adjusted only when inputting analogue signals through the PC terminal.
- Images may not be displayed properly depending on the settings and/or input signals.
- This function is available for 3D images converted from 2D images or normal 2D images.

PC compatibility chart

Resolution		Horizontal frequency	Vertical frequency	Analogue (D-Sub)	Digital (HDMI)	VESA standard
VGA	640 x 480	31.5 kHz	60 Hz	✔	✔	✔
SVGA	800 x 600	37.9 kHz	60 Hz	✔	✔	✔
XGA	1,024 x 768	48.4 kHz	60 Hz	✔	✔	✔
WXGA	1,360 x 768	47.7 kHz	60 Hz	✔	✔	✔
SXGA	1,280 x 1,024	64.0 kHz	60 Hz	✔	✔	✔
SXGA+	1,400 x 1,050	65.3 kHz	60 Hz	✔	✔	✔
UXGA	1,600 x 1,200	75.0 kHz	60 Hz	✔	✔	✔
1080p	1,920 x 1,080	67.5 kHz	60 Hz	✔	✔	

VGA, SVGA, XGA, WXGA, SXGA, SXGA+ and UXGA are registered trademarks of International Business Machines Corporation.

NOTE

- This TV has only limited PC compatibility, correct operation can only be guaranteed if the video card conforms exactly to the VESA 60 Hz standard. Any variations from this standard will result in picture distortions.

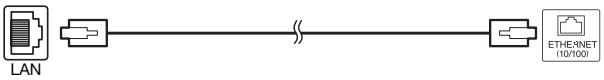
PC control of the TV

- When a programme is set, the TV can be controlled from the PC using the RS-232C or IP. The input signal (PC/video) can be selected, the volume can be adjusted and various other adjustments and settings can be made, enabling automatic programmed playing.
- Use an RS-232C serial control cable (cross type), ETHERNET cable (commercially available) or wireless LAN USB adapter for the connections.

NOTE

- This PC control should be used by a person who is accustomed to using PCs.

Communication conditions for IP



ETHERNET cable
(commercially available)

Connect to the TV with the following settings made for IP on the PC.

IP protocol	TCP/IP
Host IP address	Set the IP address on the TV menu.
Service	None (do not select Telnet or SSH).
TCP port#	Set a port number on the TV menu (Control port).

When you set your ID and password on the TV menu, you need to enter them as soon as you connect to the TV.

NOTE

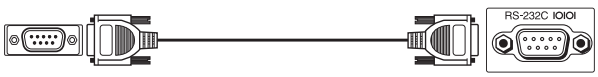
- The connection will be cut off when there has been no communication for 3 minutes.

View setting

IP Control setup

1. Go to “Menu” > “Setup” > “View setting” > “Network setup” > “IP Control setup” > select “Change”.
2. To use IP Control, select “Enable”.
3. Set the device name.
4. Set your login ID and password.
5. Set the port to use with IP Control.
6. Confirm the settings, and press ◀/▶ to select “OK” and then press **ENTER**.

Communication conditions for RS-232C



RS-232C serial control cable (cross type)
(commercially available)

Set the RS-232C communications settings on the PC to match the TV’s communications conditions. The TV’s communications settings are as follows:

Baud rate	9,600 bps
Data length	8 bits
Parity bit	None
Stop bit	1 bit
Flow control	None

Communication procedure

Send the control commands from the PC via the RS-232C connector.
The TV operates according to the received command and sends a response message to the PC.
Do not send multiple commands at the same time. Wait until the PC receives the OK response before sending the next command.
Make sure to send “A” with the carriage return and confirm that “ERR” returns before operating.

Command format

Eight ASCII codes +CR

C1	C2	C3	C4	P1	P2	P3	P4	↵
❶					❷			❸

❶ Command four digits: Command. The text of four characters.
❷ Parameter four digits: Parameter 0–9, blank, ?, minus
❸ Return code (0DH): ↵

Parameter

Input the parameter values, aligning left, and fill with blank(s) for the remainder (be sure that four values are input for the parameter).
When the input parameter is not within an adjustable range, “ERR” returns (refer to “Response code format”).

0			
0	0	0	9
1	0	0	
0	0	5	5

When “?” is input for some commands, the present setting value responds.

?	?	?	?

Response code format

Normal response

O	K	↵

Return code (0DH)

Problem response (communication error or incorrect command)

E	R	R	↵

Return code (0DH)

Command list

CONTROL ITEM	COMMAND				PARAMETER				CONTROL CONTENTS
POWER SETTING	P	O	W	R	0	_	_	_	POWER OFF (STANDBY)
INPUT SELECTION	I	T	G	D	_	_	_	_	INPUT SWITCHING (TOGGLE)
	I	T	V	D	_	_	_	_	ATV (CHANNEL FIXED)
	I	D	T	V	_	_	_	_	DTV (CHANNEL FIXED)
	I	A	V	D	*	_	_	_	INPUT 1_3 (1 – 3), HDMI 1 – 4 (4 – 7), PC (8)
CHANNEL	D	C	C	H	*	*	_	_	TV DIRECT CHANNEL (1 – 99)
	C	H	U	P	_	_	_	_	CHANNEL UP
	C	H	D	W	_	_	_	_	CHANNEL DOWN
	D	T	V	D	*	*	*	_	DTV DIRECT CHANNEL (1-999)
	D	T	U	P	_	_	_	_	DTV CHANNEL UP
	D	T	D	W	_	_	_	_	DTV CHANNEL DOWN
AV MODE SELECTION	A	V	M	D	0	_	_	_	TOGGLE
	A	V	M	D	1	_	_	_	STANDARD
	A	V	M	D	2	_	_	_	MOVIE
	A	V	M	D	3	_	_	_	GAME
	A	V	M	D	4	_	_	_	USER
	A	V	M	D	5	_	_	_	DYNAMIC (Fixed)
	A	V	M	D	6	_	_	_	DYNAMIC
	A	V	M	D	7	_	_	_	PC
	A	V	M	D	8	_	_	_	x.v.Colour
	A	V	M	D	1	4	_	_	STANDARD (3D)*1
	A	V	M	D	1	5	_	_	MOVIE (3D)*1
	A	V	M	D	1	6	_	_	GAME (3D)*1
	A	V	M	D	1	0	0	_	AUTO
VOLUME	V	O	L	M	*	*	_	_	VOLUME (0–60)
POSITION	H	P	O	S	*	*	*	–	H-POSITION (AV/PC) (–nn~nn)
	V	P	O	S	*	*	*	–	V-POSITION (AV/PC) (–nn~nn)
	C	L	C	K	*	*	*	_	CLOCK (0–180)
	P	H	S	E	*	*	_	_	PHASE (0–40)
WIDE MODE	W	I	D	E	0	_	_	_	TOGGLE (AV)
	W	I	D	E	1	_	_	_	NORMAL (AV)
	W	I	D	E	2	_	_	_	ZOOM 14:9 (AV)
	W	I	D	E	3	_	_	_	PANORAMA (AV)
	W	I	D	E	4	_	_	_	FULL (AV)
	W	I	D	E	5	_	_	_	CINEMA 16:9 (AV)
	W	I	D	E	6	_	_	_	CINEMA 14:9 (AV)
	W	I	D	E	7	_	_	_	NORMAL (PC)
	W	I	D	E	8	_	_	_	CINEMA (PC)
	W	I	D	E	9	_	_	_	FULL (PC)
	W	I	D	E	1	0	_	_	DOT by DOT (AV/PC)
	W	I	D	E	1	1	_	_	UNDERSCAN (AV/PC)
	W	I	D	E	1	2	_	_	AUTO (USB-Video/Home network-Video)
	W	I	D	E	1	3	_	–	ORIGINAL (USB-Video/ Home network-Video)

CONTROL ITEM	COMMAND				PARAMETER				CONTROL CONTENTS
MUTE	M	U	T	E	0	_	_	_	TOGGLE
	M	U	T	E	1	_	_	_	MUTE
	M	U	T	E	2	_	_	_	MUTE OFF
SURROUND	A	C	S	U	0	_	_	_	SURROUND TOGGLE
	A	C	S	U	1	_	_	_	SURROUND TS HD ON
	A	C	S	U	2	_	_	_	SURROUND OFF
	A	C	S	U	4	_	_	_	SURROUND 3D HALL
	A	C	S	U	5	_	_	_	SURROUND 3D MOVIE
	A	C	S	U	6	_	_	_	SURROUND 3D STANDARD
AUDIO CHANGE	A	C	H	A	_	_	_	_	TOGGLE
SLEEP TIMER	O	F	T	M	0	_	_	_	OFF
	O	F	T	M	1	_	_	_	SLEEP TIMER 30 MIN
	O	F	T	M	2	_	_	_	SLEEP TIMER 1 HOUR
	O	F	T	M	3	_	_	_	SLEEP TIMER 1 HOUR 30 MIN
	O	F	T	M	4	_	_	_	SLEEP TIMER 2 HOUR
	O	F	T	M	5	_	_	_	SLEEP TIMER 2 HOUR 30 MIN
TEXT	T	E	X	T	0	_	_	_	TEXT OFF
	T	E	X	T	1	_	_	_	TEXT ON (TOGGLE)
	D	C	P	G	*	*	*	–	DIRECT PAGE JUMP (100–899)
3D	T	D	C	H	0	_	_	_	3D OFF
	T	D	C	H	1	_	_	_	2D → 3D
	T	D	C	H	2	_	_	_	SIDE BY SIDE
	T	D	C	H	3	_	_	_	TOP AND BOTTOM
	T	D	C	H	4	_	_	_	3D → 2D (SIDE BY SIDE)
	T	D	C	H	5	_	_	_	3D → 2D (TOP AND BOTTOM)
	T	D	C	H	6	_	_	_	3D AUTO
	T	D	C	H	7	_	_	_	3D → 2D*1
DEVICE NAME	T	V	N	M	1	_	_	_	DISPLAY THE DEVICE NAME
MODEL NAME	M	N	R	D	1	_	_	_	DISPLAY THE MODEL NAME
SOFTWARE VERSION	S	W	V	N	1	_	_	_	DISPLAY THE SOFTWARE VERSION
IP PROTOCOL VERSION	I	P	P	V	1				DISPLAY THE IP PROTOCOL VERSION

*1 These commands are available only during 3D mode.

NOTE

- If an underbar (_) appears in the parameter column, enter a space.
- If an asterisk (*) appears, enter a value in the range indicated in brackets under CONTROL CONTENTS.

Enjoying 3D image viewing

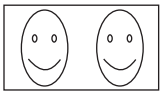
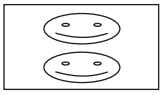
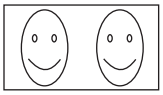
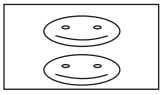
You can use special 3D glasses to watch 3D-supported images on this TV.

- You can enjoy 3D movies on this TV by viewing the movie through 3D glasses, sold separately.
- To produce 3D images, liquid crystal shutters in the 3D glasses alternately open and close imperceptibly fast to exactly match alternating left and right video images displayed by the TV.
- Not all consumers can experience and enjoy 3D TV. Some people suffer from stereo blindness which prevents them from perceiving the intended depth of 3D entertainment. Also, some people who watch 3D programming may experience initial feelings of motion sickness as they adjust to the picture. Others may experience headaches, eye fatigue or continued motion sickness, or some viewers might also experience epileptic seizures or strokes. Like a roller coaster, the experience is not for everyone.

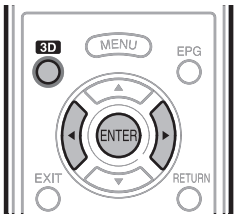
CAUTION

- The 3D glasses are precision equipment. Handle them with care.
- Improper use of the 3D glasses or failure to follow these instructions can result in eye strain.
- If you experience dizziness, nausea, or other discomfort while viewing 3D images, immediately discontinue use of the 3D glasses. Using the binocular disparity 3D system of this TV with incompatible 3D broadcasts or software can make images appear with a cross talk blur or create overlapping images.
- When viewing 3D images continuously, be sure to take a break periodically to prevent eye strain.
- If you are nearsighted or farsighted or have astigmatism or a different level of eyesight between the left and right eyes, you should take the necessary steps, such as wearing eyeglasses, to correct your eyesight before viewing 3D images. The 3D glasses can be worn over eyeglasses.
- When viewing 3D images, keep the 3D glasses horizontally level with the TV screen. If you tilt the 3D glasses with respect to the TV screen, the images viewed by the left and right eyes may appear significantly different or images may appear overlapping.
- View 3D images at the appropriate distance from the TV screen. The recommended distance is three times the effective height of the TV screen. Viewing should not be done closer than the recommended distance.
- Be careful of your surroundings when viewing 3D images. When you view 3D images, objects may appear at a distance closer or farther than the actual TV screen. This may cause you to misjudge the distance to the TV screen and possibly result in injury if you accidentally hit the screen or surrounding objects.
- The 3D glasses are not recommended for people aged less than 6.
- When children are viewing 3D images, be sure a parent or guardian is present. Monitor children viewing 3D images, and if they show signs of discomfort, immediately discontinue use of the 3D glasses.
- People with a known history of photosensitivity and people with heart problems or poor health should not use the 3D glasses. This can worsen existing health conditions.
- Do not use the 3D glasses for other purposes (such as general eyeglasses, sunglasses, or protective goggles).
- Do not use the 3D function or 3D glasses while walking or moving around. This may result in injuries due to running into objects, tripping, and/or falling.
- When using the 3D glasses, take care not to accidentally strike the TV screen or other people. Viewing 3D images may cause you to misjudge the distance to the TV screen and accidentally strike the screen, resulting in possible injury.
- It is recommended that you do not view 3D images if you are sleep deprived or if you have been drinking alcohol.

Display format for 3D and 2D images

	Image for input signals	Selectable mode	Description
3D mode (using the 3D glasses)		2D → 3D	• Converts normal 2D images into 3D images.
		Side by Side	• Creates 3D images from 3D images displayed side by side. The image is split into a left and right image, and then the images are stretched and displayed sequentially to create a 3D image.
		Top and Bottom	• Creates 3D images from 3D images displayed on the top and bottom. The image is split into a top and bottom image, and then the images are stretched and displayed sequentially to create a 3D image.
2D mode (without using the 3D glasses)		Side by Side → 2D	• Creates 2D images from 3D images displayed side by side. Only the left image is stretched and displayed. The image does not appear in 3D.
		Top and Bottom → 2D	• Creates 2D images from 3D images displayed on the top and bottom. Only the top image is stretched and displayed. The image does not appear in 3D.

Viewing 3D images



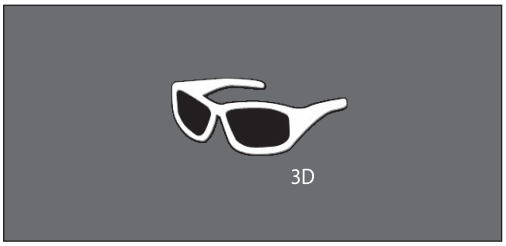
NOTE
- The TV screen may temporarily become black when the TV is trying to detect a 3D image signal and when switching from 3D to 2D mode.

Receiving a 3D image signal that can be detected automatically

The image signal may contain a 3D identification signal. You can enable the TV to automatically detect the 3D image type (Page 60).

1 Go to “Menu” > “Setup” > “Option” > “3D setup” > “3D auto change”.

When “3D auto change” is set to “Yes”
- The 3D display format is detected automatically and the appropriate 3D image is displayed.



When “3D auto change” is set to “No”

① The confirmation message is displayed. Press **3D**.
② Press ◀/▶ to select “Yes”, and then press **ENTER**.

2 Turn on the power of the 3D glasses, and then wear the 3D glasses.
- Press the power button for at least two seconds.
- The LED light blinks three times.

NOTE
- If you do not want to switch to 3D mode automatically, set “3D auto change” to “No”.
- When the TV is receiving a 3D image signal that can be detected automatically, the 3D mode icon is displayed in the channel display.

Switching 3D to 2D mode

When you press **3D** while you are watching the TV in 3D mode, the TV switches to 2D mode.

1 Press **3D** during the 3D mode.

2 Select “Yes”, and then press **ENTER** to switch to 2D mode.

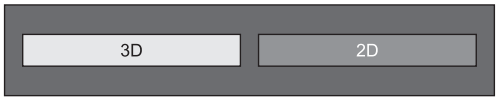
3 Take off the 3D glasses and turn off the power of the 3D glasses.
- Press the power button for at least two seconds.
- The LED light lights for two seconds.

NOTE
- If the input signal switches to 2D, 2D images are displayed automatically.
- 3D mode is canceled automatically when the setting is changed, input source is changed, the input signal resolution is changed or the power is turned off.

Receiving a 3D image signal that cannot be detected automatically

When the TV receives a 3D image signal that cannot be detected automatically, you can select between 3D and 2D image viewing.

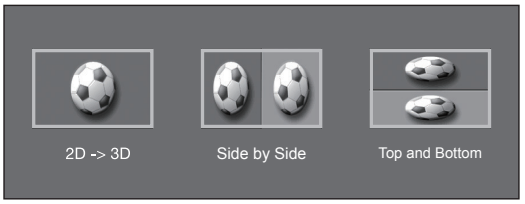
1 Press **3D**.
- A screen appears prompting you to select between 3D and 2D image viewing.



2 Press ◀/▶ to select “3D” or “2D”, and then press **ENTER**.

To view in 3D mode

① Press ◀/▶ to select the 3D signal type (“2D → 3D”, “Side by Side” or “Top and Bottom”), and then press **ENTER**.

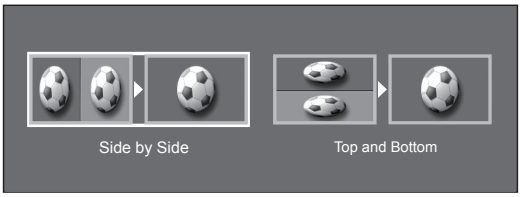


- If you select the same system as that of the input signal, 3D images are displayed.
- You can select only “2D → 3D” in TV mode.

② Turn on the power of the 3D glasses, and then wear the 3D glasses.
- Press the power button for at least two seconds.
- The LED light blinks three times.

To view in 2D mode
- Switching from 3D to 2D mode.

Press ◀/▶ to select the 2D signal type (“Side by Side” or “Top and Bottom”), and then press **ENTER**.



- If you select the same system as that of the input signal, 2D images are displayed.

Watching 2D images in 3D

You can convert normal 2D images into 3D images.

1 Press **3D**.

2 Press ◀/▶ to select “2D → 3D”, and then press **ENTER**.

3 Turn on the power of the 3D glasses, and then wear the 3D glasses.

NOTE

- The confirmation message to select either 3D or 2D mode is displayed on the screen once per hour.
- When the TV converts normal 2D images into 3D images, you can display the “2D → 3D convert effect” menu to adjust the convert effect by pressing **Y**.

Switching to the previous mode

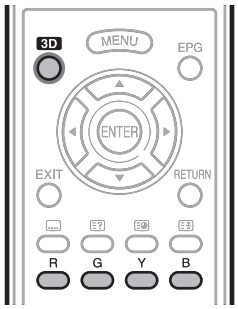
You can switch back to the previous mode by pressing **3D**.

1 Press **3D**.
- A confirmation message is displayed.

2 Select “Yes”, and then press **ENTER**.
- The TV returns to the previous mode.

3D Menu

Pressing **3D** in 3D mode displays the 3D menu. Press the coloured buttons to make the necessary settings.



Buttons	Description
R button	3D brightness boost (Page 62).
G button	Surround (Page 33). • The surround mode changes each time you press **G**.
Y button	2D → 3D convert effect (Page 63). • “2D → 3D convert effect” is available only when selecting “2D → 3D” (refer to **Watching 2D images in 3D** shown above).
B button	3D setup (Page 63).

Configuring the TV settings to enhance 3D image viewing

You can make various settings to enhance 3D image viewing.



3D picture adjustments

Basic operation

Go to “Menu” > “Setup” > “Picture” > select/adjust the item you want to set.

NOTE

- Which items can be selected/adjusted differs depending on whether the TV is in 2D mode or in 3D mode.

AV mode

The audio and video settings can be changed to suit the programme or input content being watched.

Item	
STANDARD (3D)	For a highly defined image in a normal lighting.
MOVIE (3D)	For a movie.
GAME (3D)	Lowers image brightness for easier viewing.

NOTE

- You can select “AV mode” by pressing **AV MODE** on the remote control unit.

3D brightness boost

You can adjust the backlight of the TV for 3D image viewing.

Item	
High	The screen brightens
Middle	⇕
Low	The screen dims

NOTE

- When “High” or “Low” is selected, “OPC”, “Backlight” and “Range of OPC” are not available.
- The “3D brightness boost” is not available for 2D mode.
- The “3D brightness boost” items can be saved for every 3D “AV mode” item (“STANDARD (3D)”, “MOVIE (3D)”, “GAME (3D)”).

3D setup

Basic operation

Go to “Menu” > “Setup” > “Option” > “3D setup” > select the menu you want to set.

3D auto change

This function allows the TV to switch to 3D mode automatically when a 3D identification signal is detected.

Item	
Yes	When a 3D signal is detected, the TV switches to 3D mode automatically.
No	Automatic change is not performed.

NOTE
- 3D signals may not be detected depending on the signal format.

2D → 3D convert effect

You can adjust the 3D effect when converting images from 2D mode to 3D mode. Select a desired level of convert effect from +1 to +16.

NOTE
- This function is only available when converting 2D images to 3D images.
- When you use this function, image conversion on the TV will result in some differences in the original images and how they appear.
- 2D images that have been converted to 3D images may be viewed only for personal use.

3D still image effect setting

Select the method for adjusting the 3D still image effect (depth).

Item	
Auto	Adjusts the still image effect (depth) automatically.
Manual	Manually adjust the still image effect (depth).

NOTE
- If you selected “Manual”, adjust the 3D still image effect (depth) with “3D still image effect adjustment”.
- This function can be adjusted when viewing 3D still images in USB media mode.
- Even if you selected “Auto”, the 3D still image effect (depth) may not be correctly adjusted depending on the 3D still image.
- 3D still images taken in macro mode will be displayed with excessive depth.
- If you experience discomfort while viewing 3D images, immediately discontinue viewing.

3D still image effect adjustment

You can adjust the 3D still image effect (depth). Adjust the level from −5 to +10. “0” is the level where no adjustment is made (factory preset value).

NOTE
- This function can be adjusted when viewing 3D still images in USB media mode.
- If you experience discomfort while viewing 3D images, immediately discontinue viewing.

Viewing time info

This function allows you to display the elapsed time of 3D image viewing on the screen.

Item	
Yes	The elapsed time is displayed in one-hour increments after you start watching 3D images.
No	Hide the time.

3D test

This function displays 3D images for testing the 3D operation. Clicking “Start” on the screen plays back 3D test images.

NOTE
- If you press **EXIT** during playback, the previous screen will be displayed.

3D glasses control

To enable this function, set the location of the TV to “STORE” (Page 15). Selecting “Yes” prevents the 3D glasses from receiving 3D signals from other TVs.

Troubleshooting – 3D Images

Problem	Possible solution
• 3D images are not displayed.	• Is “3D auto change” set to “No”? Press **3D** to switch to 3D mode. • If “3D auto change” is set to “Yes” but no 3D images are displayed, check the display format of the content being viewed. Some 3D image signals may not be recognized as 3D images automatically. Press **3D** to select the appropriate display format for the 3D image. • Is the power of the 3D glasses turned on? • Are the 3D glasses set to 2D mode? • Is there an obstacle between the 3D glasses and the TV, or is something covering the infrared receiver on the 3D glasses? The 3D glasses operate by receiving a signal from the TV. Do not place anything between the 3D infrared emitter on the TV and the infrared receiver on the 3D glasses.
• The 3D glasses turn off automatically.	• Is there an obstacle between the 3D glasses and the TV, or is something covering the infrared receiver on the 3D glasses? The 3D glasses turn off automatically after three minutes if no signal is received from the TV. Do not place anything between the 3D infrared emitter on the TV and the infrared receiver on the 3D glasses.
AN-3DG10-S • Pressing the power button on the 3D glasses does not cause the LED light to light.	• Is the battery in the 3D glasses exhausted? If the LED light does not light after pressing the power button for more than one second, the battery is exhausted. Replace the battery.
AN-3DG20-B • Sliding the switch to **3D** to turn on the power does not cause the LED light to light.	• Is the battery in the 3D glasses exhausted? If the LED light does not light after sliding the switch to **3D** to turn on the power, the battery is exhausted. Recharge the battery or supply power to the 3D glasses via the TV using the USB cable (supplied accessory) as indicated in the operation manual of the 3D glasses.

3D glasses lenses

- Do not apply pressure to the lenses of the 3D glasses. Also, do not drop or bend the 3D glasses.
- Do not scratch the surface of the lenses of the 3D glasses with a pointed instrument or other object. Doing so may damage the 3D glasses and reduce the quality of 3D images.
- Use only the cloth provided with the 3D glasses to clean the lenses.

3D glasses infrared receiver

- Do not allow the infrared receiver to become dirty, and do not attach stickers to or otherwise cover the infrared receiver. Doing so may prevent the receiver from operating normally.
- If the 3D glasses are affected by other infrared data communication equipment, 3D images may not be displayed correctly.

Caution during viewing

- Do not use devices that emit strong electromagnetic waves (such as cellular phones or wireless transceivers) near the 3D glasses. Doing so may cause the 3D glasses to malfunction.
- The 3D glasses cannot operate fully at extreme high or low temperatures. Use them within the specified usage temperature range.
- If the 3D glasses are used in a room with fluorescent lighting (50/60 Hz), the light within the room may appear to flicker. In this case, either darken or turn off the fluorescent lights when using the 3D glasses.
- Wear the 3D glasses correctly. 3D images will not be correctly visible if the 3D glasses are worn upside down or back-to-front.
- Other displays (such as computer screens, digital clocks, and calculators) may appear dark and difficult to view while wearing the 3D glasses. Do not wear the 3D glasses when watching anything other than 3D images.
- If you lie on your side while watching the TV with 3D glasses, the picture may look dark or may not be visible.
- Be sure to stay within the viewing angle and optimum TV viewing distance when watching 3D images. Otherwise, you may not be able to enjoy the full 3D effect.
- The 3D glasses may not work properly if there is any other 3D product or electronic device turned on near the glasses or TV. If this occurs, turn off the other 3D product or electronic device or keep the device as far away as possible from the 3D glasses.
- Stop using this product in any of the following situations:
  - When images consistently appear doubled while you are wearing the 3D glasses.
  - When you have difficultly perceiving the 3D effect.
- If the 3D glasses are faulty or damaged, stop using them immediately. Continued use of the 3D glasses may cause eye fatigue, headaches and illness.
- If you have any abnormal skin reaction, stop using the 3D glasses. In very rare instances, such reactions may be due to an allergic reaction to the coating or materials used.
- If your nose or temples become red or you experience any pain or itchiness, stop using the 3D glasses. Pressure caused by long periods of use may lead to such reactions and may result in skin irritation.
- You may not be able to use several menu items while you are watching the TV in 3D mode.
- You cannot use the 3D function in radio or data mode.

Usage range of the 3D glasses

- The 3D glasses can be used by receiving an infrared signal sent from the TV.

Operating range:

- From directly in front of the 3D infrared emitter on the TV: approx. 5 m (within approx. 30° horizontally and 20° vertically)
  - The 3D infrared emitter lights in 3D mode.

NOTE

- These 3D glasses are only for use with SHARP LCD TVs supporting 3D.

Appendix

Troubleshooting

Problem	Possible solution
• No power.	• Is the AC cord disconnected? • Check if you pressed **POWER** ⏻ on the TV. • When the power switch does not work, remove the power plug and insert it again, and press **POWER** ⏻ on the TV after waiting more than five seconds.
• The TV cannot be operated.	• External influences such as lightning, static electricity, etc., may cause improper operation. In this case, operate the TV after first turning off the power, or unplugging the AC cord and re-plugging it in after one or two minutes.
• Remote control unit does not operate.	• Are batteries inserted with polarity (+, −) aligned? • Are batteries worn out? (Replace with new batteries.) • Are you using it under strong or fluorescent lighting? • Is a fluorescent light illuminating to the remote control sensor?
• Picture is cut off.	• Is the image position correct? • Are screen mode adjustments (Wide mode) such as picture size made correctly? (Pages 39–40, 52 and 56)
• Strange colour, light colour, or dark colour, or colour misalignment.	• Adjust the picture tone (Pages 31–32). • Is the room too bright? The picture may look dark in a room that is too bright. • Check the “Colour system” setting (Pages 36 and 41). • Check the “HDMI auto view” setting (Page 41).
• Power is suddenly turned off.	• The TV’s internal temperature has increased. Remove any objects blocking the vent or clean. • Is the “Sleep timer” set? Select “Off” from the “Sleep timer” menu (Page 34). • Is “No signal off” or “No operation off” activated? (Page 34)
• No picture.	• Are connections to external equipment correct? (Pages 25–27) • Is the correct input source selected? (Page 17) • Is a non-compatible signal being input? (Page 57) • Is the picture adjustment correct? (Pages 31–32) • Is the antenna connected properly? (Page 9) • Is “On” selected in “Audio only”? (Page 34)
• No sound.	• Is the volume too low? • Make sure that headphones are not connected. • Check if you pressed 🔇 on the remote control unit. • Is the proper item selected in the “Audio select” menu when connecting devices to the HDMI 2 terminal or the PC terminal? (Pages 26, 40 and 56)
• The TV sometimes makes a cracking sound.	• This is not a malfunction. This happens when the cabinet slightly expands and contracts according to changes in temperature. This does not affect the TV’s performance.

Troubleshooting – Digital broadcasing

Problem	Error code	Possible solution
• No picture or no sound.	—	• Is the correct input source selected? (Page 17)
• Block noise appears on the screen.		• Is the antenna pointing in the correct direction? • Check the “Signal strength” and “Quality” (Page 15). • Are physical objects blocking the antenna? • Is the antenna or antenna cable compatible with DTV broadcast?
• DTV broadcasts cannot be received.	**E202**	• Is the DTV antenna set up properly? • Is the antenna cable connected properly? (Page 9) • Is the channel settings correct? (Page 15)
• A specific channel cannot be received.	—	• Check the “Signal strength” and “Quality” (Page 15).
• No broadcast now	**E203**	• Check the current broadcast.

CLEARING THE PASSWORD

1 Go to “Menu” > “Setup” > “View setting” > “Individual setting” > “Password”.

2 The password input screen displays.

3 Press and hold both **CH**∧ and **VOL**+ on the TV simultaneously until the message appears on the screen.

NOTE

• To set the password again, refer to **Password** on page 37 and follow the instructions.

The Password is | | | | | .

NOTE

• As a precautionary measure, make a note of your password above, remove it from this manual, and keep it in a familiar place.

Reset

If complex adjustments are made so that the settings cannot be restored to normal, you can reset the settings to the factory preset values.

1 Go to “Menu” > “Setup” > “View setting” > “Reset”.

2 If you have already set the password, enter it here.

3 Press ◀/▶ to select “Yes”, and then press **ENTER**.
- “Now, TV will restart automatically, OK?” displays on the screen.

4 Press ◀/▶ to select “Yes”, and then press **ENTER**.
- “Now initialising...” displays on the screen and blinks.
- After the reset has completed, the power shuts off and then comes back on. The screen will have returned to its original settings.

5 Press ▲/▼ to select the desired language listed on the screen, and then press **ENTER**.

Press ◀/▶ to select “HOME” or “STORE”, and then press **ENTER**.

6 Setting the country.
Press ▲/▼ to select your country or area, and then press **ENTER**.
- This setting screen only appears during the initial auto installation.

7 The TV searches for and stores all the receivable TV stations according to their settings and the connected antenna.
- To abort the initial auto installation in progress, press **RETURN**.

NOTE
- When the TV is in “STORE” mode, repeat steps 1 to 5 to change to “HOME” mode.
- “Reset” is greyed out in 3D mode. To select the “Reset” menu, you need to switch to 2D mode.

Updating your TV via DVB-T

Ensure that your TV software version is always up to date. From time to time SHARP will make updated TV base software and DVB software available.



Go to “Menu” > “Setup” > “View setting” > “Individual setting” > “Standby search” > “Download setup”.

Searching for updates

The TV automatically determines whether a new software version is available when the TV is in standby mode.

Item	
Yes	Automatically searches for new software updates available when the TV is in standby mode.
No	Does not search for update information.
Now	Lowers image brightness for easier viewing. Checks if there is new software immediately.

Downloading the software

You can select the method of update.

1 If the software is updated, the confirmation message “New download information has been detected.” appears.
- If the TV receives the update service while in standby mode, a confirmation message displays after turning on the power.

2 Follow the screen prompts.

Item	
Yes	Starts downloading immediately. It takes approximately one hour to update. You cannot carry out other operations while downloading. • Cancels the download by pressing **ENTER** on the remote control unit when “Discontinue” is displayed on the screen during the update.
No	Starts downloading automatically several minutes after entering standby mode.

NOTE
- Do not unplug the AC cord while receiving the data, otherwise it will not be captured properly.
- Updating the software may take some time.

Getting information

Information
Message list

When new software is detected, you can confirm the update information and download the software from “Message list”.

Go to “Menu” > “Setup” > “Information” > “Message list”.

NOTE

- When the TV succeeds at downloading new software, the message is updated in the “Message list” of the “Information” menu.
- The software update will not be carried out if there is no new software available at the specified download time.

Information
Receiver report

Display reports regarding failures and changes for timer settings.

Go to “Menu” > “Setup” > “Information” > “Receiver report”.

Information
Identification

You can check the TV ID on the screen for reporting to customer service.

Go to “Menu” > “Setup” > “Information” > “Identification”.

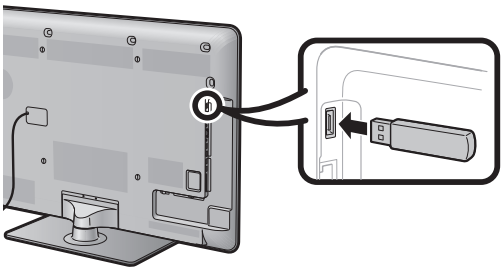
Updating your TV via USB

Information
Software update

This function allows you to update to the latest software using a USB device. You must update the software through the USB terminal.

1 Go to “Menu” > “Setup” > “Information” > “Software update”.

2 Press **ENTER** and then insert the USB device containing the software update file.



CAUTION

- Be sure to insert the USB device correctly into the terminal.

3 The TV displays a confirmation screen while checking the data in the inserted USB device.

CAUTION

- If the data is not compatible with the system, an error message appears on the screen. Repeat steps 2 and 3 after pressing **ENTER**.
- When an error message displays, check to see if:
  - The USB device is inserted firmly.
  - The USB memory has two or more software update files.
  - No data for updating the system exists in the USB memory.
  - The software update file is broken.
  - The software update file is not compatible with your TV’s software.
  - The current system is same as the system update data.

4 The TV displays the software version information after checking the data.

5 Press ◀/▶ to select “Yes” to update the system, and then press **ENTER**.

6 The TV restarts automatically, and the software update will be complete.

- This operation may take a while.

Information on the software licence for this product

Software licence

You can read the software licences in this menu.

Go to “Menu” > “Setup” > “Information” > “Software licence”.

Software composition

The software included in this product is comprised of various software components whose individual copyrights are held by SHARP or by third parties.

Warning regarding basic use

Cautions regarding use in high and low temperature environments

- When the TV is used in a low temperature space (e.g., room, office), the picture may leave trails or appear slightly delayed. This is not a malfunction, and the TV will recover when the temperature returns to normal.
- Do not leave the TV in a hot or cold location. Also, do not leave the TV in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the LCD panel to malfunction.
  Storage temperature: – 20 °C to + 60 °C.

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Specifications

Item			LC-60LE830X	LC-52LE830X	LC-46LE830X	LC-40LE830X
Resolution			1,920 x 1,080 x 4 dots			
Video colour system			PAL/SECAM/NTSC 3.58/NTSC 4.43/PAL 60			
TV function	TV-standard	Analogue	PAL (B/G, D/K, I), SECAM (B/G, D/K, K/K1), NTSC:(M)			
		Digital	DTB-T			
	Receiving channel	VHF/UHF	44.25-863.25 MHz			
	TV tuning system		Auto preset 02ch/07ch/09ch/10ch/28ch at Australia.			
	STEREO/BILINGUAL		NICAM (B/G, I, D/K), A2 stereo (B/G), BTSC			
Audio amplifier			10 W x 2, 15 W x 1 (Woofer)			
Speaker			(8.5 cm x 1.5 cm) x 2, Ø 9.5 cm			
Terminals	ANT (Antenna input)		UHF/VHF 75 Ω Din type			
	RS-232C		D-Sub 9 pin male connector			
	INPUT 1		VIDEO in, AUDIO in			
	INPUT 2		VIDEO in, AUDIO in			
	INPUT 3		AUDIO in, COMPONENT in (480I, 576I, 480P, 576P, 720P/50Hz, 720P/60Hz, 1080I/50Hz, 1080I/60Hz)			
	PC		15 pin mini D-sub, AUDIO in (shared usage with HDMI2) (Ø 3.5 mm jack)			
	HDMI 1 (ARC)		HDMI (HDMI input) (480I, 576I, 480P, 576P, 720P/50Hz, 720P/60Hz, 1080I/50Hz, 1080I/60Hz, 1080P/50Hz, 1080P/60Hz, 1080P/24Hz)			
	HDMI 2		HDMI (HDMI input) (480I, 576I, 480P, 576P, 720P/50Hz, 720P/60Hz, 1080I/50Hz, 1080I/60Hz, 1080P/50Hz, 1080P/60Hz, 1080P/24Hz), AUDIO in (shared usage with PC) (Ø 3.5 mm jack)			
	HDMI 3		HDMI (HDMI input) (480I, 576I, 480P, 576P, 720P/50Hz, 720P/60Hz, 1080I/50Hz, 1080I/60Hz, 1080P/50Hz, 1080P/60Hz, 1080P/24Hz)			
	HDMI 4		HDMI (HDMI input) (480I, 576I, 480P, 576P, 720P/50Hz, 720P/60Hz, 1080I/50Hz, 1080I/60Hz, 1080P/50Hz, 1080P/60Hz, 1080P/24Hz)			
	USB 1		USB*1			
	USB 2 (HDD)		USB			
	USB 3 (WIRELESS LAN)		USB			
	ETHERNET (10/100)		Network connector			
	AUDIO IN (HDMI 2/PC)		Ø 3.5 mm jack*2			
	DIGITAL AUDIO OUTPUT		Optical S/PDIF digital audio output			
	OUTPUT/Headphones		Ø 3.5 mm jack (audio output)			
OSD language			English/Simplified Chinese/Arabic			
Power requirement			AC 110−240 V, 50/60 Hz			
Power consumption (method IEC62087)			200 W (0.3 W Stand by)	151 W (0.3 W Stand by)	130 W (0.3 W Stand by)	109 W (0.3 W Stand by)
Weight	With Stand		37.5 kg	27.5 kg	22.5 kg	16.5 kg
	Without Stand		30.5 kg	23.5 kg	18.5 kg	13.5 kg
Operating temperature			0 °C to + 40 °C			

*1 Skype will be available only for the USB1 terminal. Visit the following website for details:
Skype: http://www.skype.com or Sharp: http://www.aquos-world.com

*2 The HDMI 2 and PC terminals can both use the same audio input terminal.

- As a part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

Removing the stand

For wall mounting with the optional bracket (AN-37AG2 + AN-37P30 or AN-52AG4) remove the stand.

Before setting TV on the wall

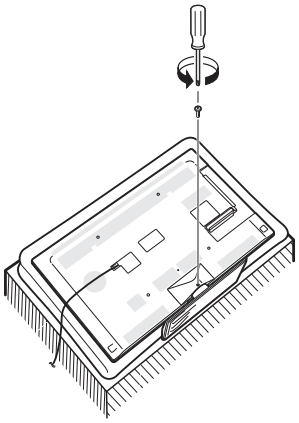
- Remove the connected cables (DVD, VCR, etc) from the terminals.
- Before performing work, make sure to turn off the TV.
- Before performing work spread cushioning over the base area to lay the TV on. This will prevent it from being damaged.

NOTE

- To attach the stand, perform the above steps in reverse order.
- As the TV is very heavy, be careful when moving it.

LC-52LE830X/LC-46LE830X/LC-40LE830X

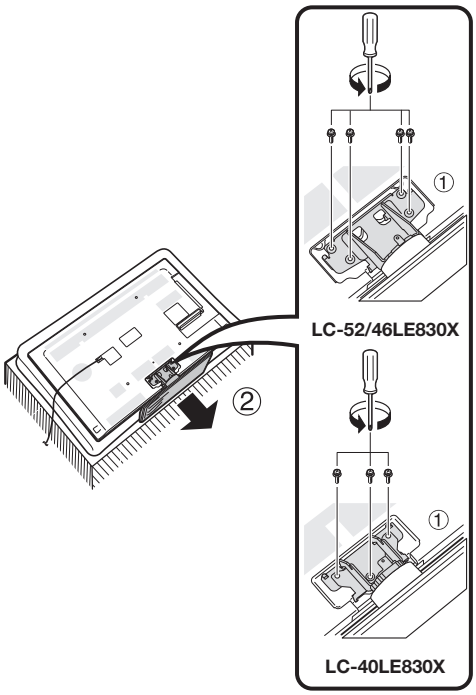
1 Loosen the screw used to secure the stand cover and remove the cover.



2 Remove the stand.

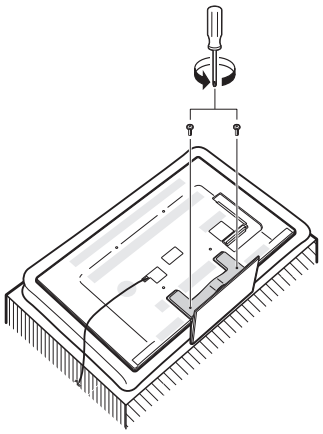
① Unfasten the screws used to secure the stand in place.

② Detach the stand from the TV (hold the stand so it will not drop from the edge of the base area).



LC-60LE830X

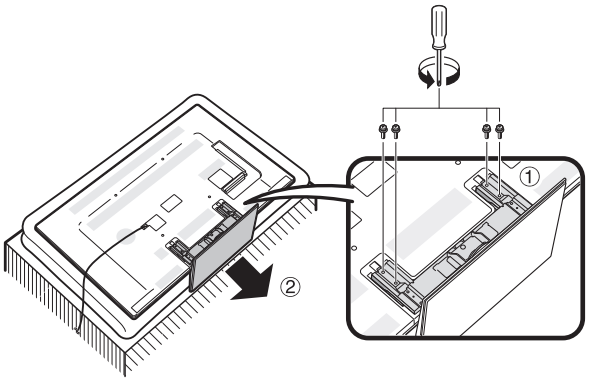
1 Loosen the two screws used to secure the stand cover.



2 Remove the stand.

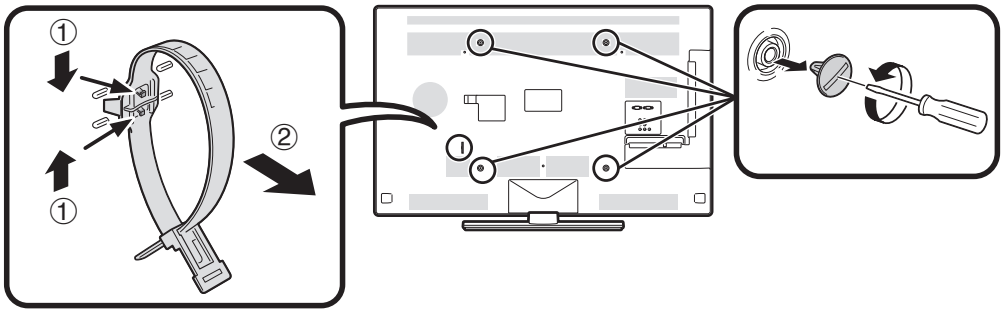
① Unfasten the four screws used to secure the stand in place.

② Remove the cover.



Mounting the TV on a wall

To use this TV mounted on a wall, remove the AC cord holder and the screws at the 4 locations on the rear of the TV, and then use the screws supplied with the wall mount bracket to secure the bracket to the rear of the TV.

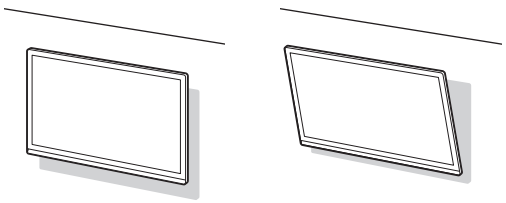


- **This TV should be mounted on a wall only with the wall mount bracket and attachment* available from SHARP (Page 5). The use of other wall mount brackets may result in an unstable installation and may cause serious injuries.**
- **Mounting the LCD colour TV requires special skills and should only be performed by qualified service personnel. Customers should not attempt to do the work themselves. SHARP bears no responsibility for improper mounting or mounting that results in accident or injury.**
- You can ask qualified service personnel about using an optional bracket and attachment* to mount the TV to a wall.
- When you mount the TV on a wall, you should attach the supporting post.
- Detach the AC cord holder on the rear of the TV before mounting the TV on a wall.

* Only for 40 inch models

Hanging on the wall

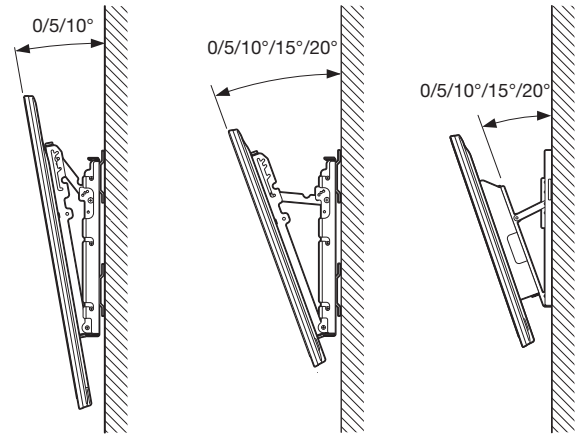
AN-37AG2 + AN-37P30 or AN-52AG4 wall mount bracket (see the bracket instructions for details).



Vertical mounting

Angular mounting

About setting the TV angle



AN-52AG4 (LC-60LE830X)

AN-52AG4 (LC-52/46LE830X)

AN-37AG2+AN-37P30 (LC-40LE830X)

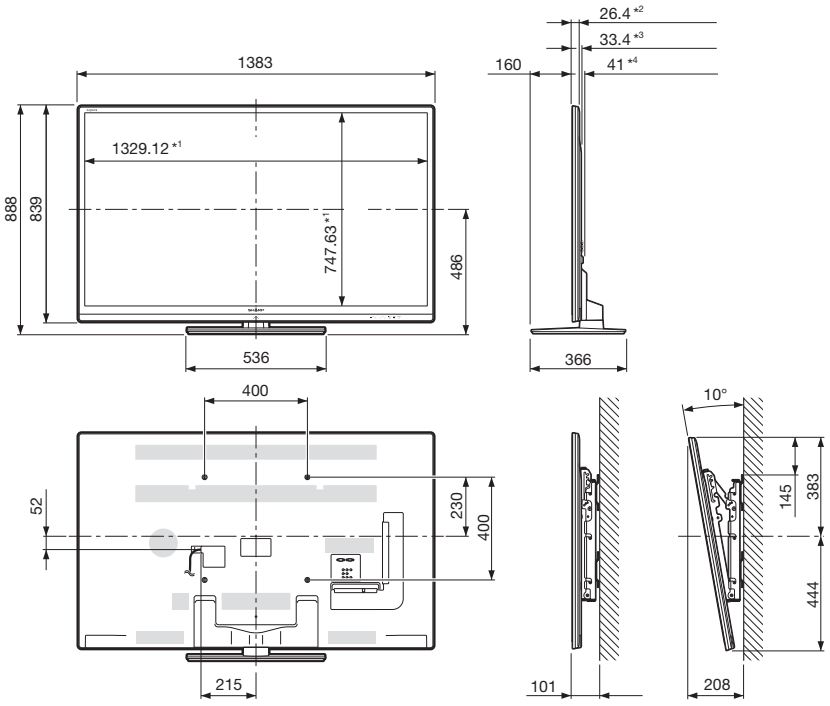
Wall mount audio setup

When you mount the TV on a wall, you can adjust the sound to a more suitable one by setting this function to “Yes”.

Go to “Menu” > “Setup” > “View setting” > “Wall mount audio setup”.

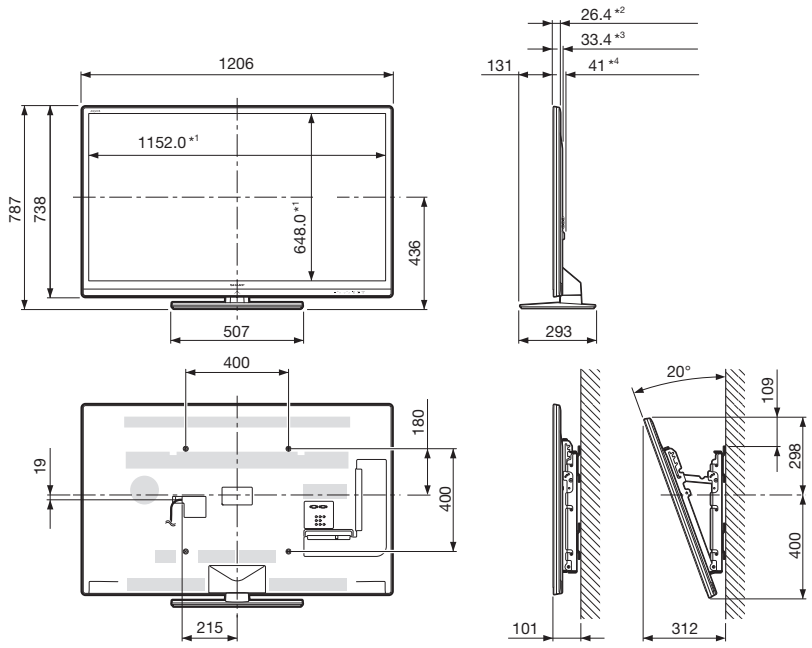
Dimensional drawings

LC-60LE830X



AN-52AG4

LC-52LE830X



AN-52AG4

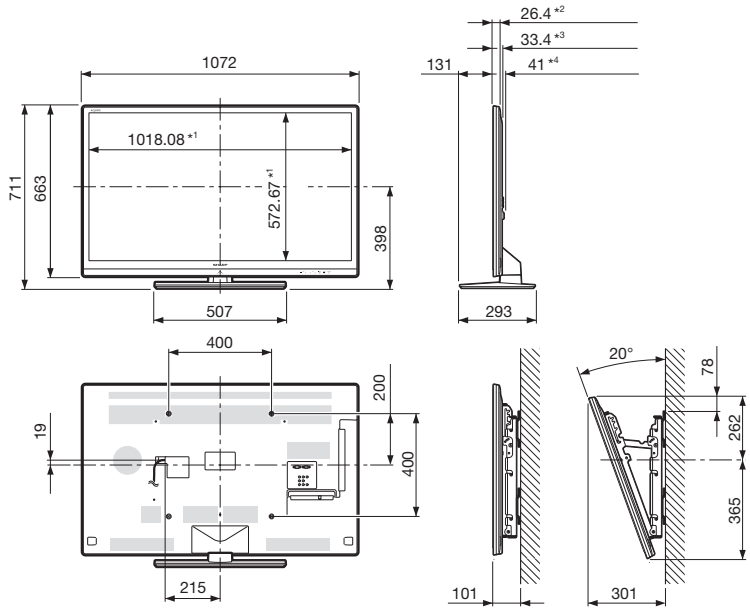
*1 Active area
*2 Thinnest part
*3 Excluding projecting part
*4 Including projecting part

NOTE

- Dimensions do not include protrusions such as screws and some parts.

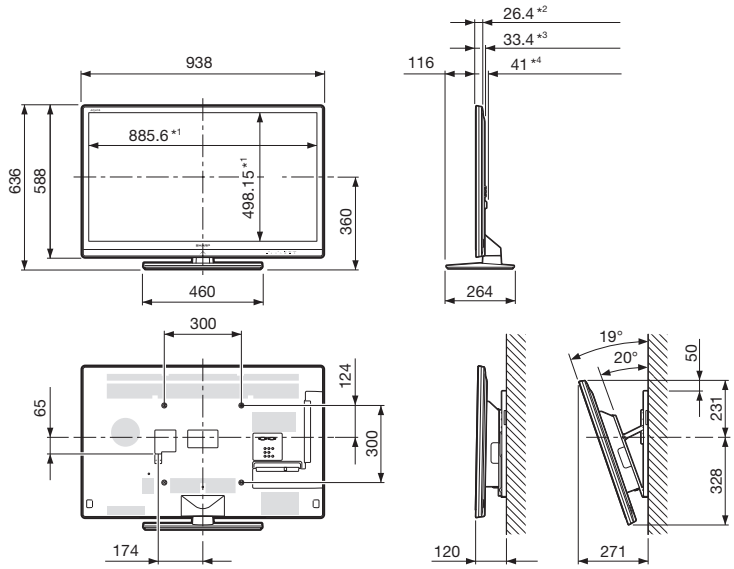
Dimensional drawings

LC-46LE830X



AN-52AG4

LC-40LE830X



AN-37AG2
+
AN-37P30

*1 Active area
*2 Thinnest part
*3 Excluding projecting part
*4 Including projecting part

NOTE

- Dimensions do not include protrusions such as screws and some parts.

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